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Understanding the role of appraisal in the relationship between work overload, work engagement and burnout in South African organisations

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Declaration

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this research report from the work, or works of other people has been attributed, cited and referenced.

Signed by candidate

Signature: ……. **Date**: 09 April 2019

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Abstract

The objective of the study was to investigate how individual appraisal of high workload as a challenge or a hindrance stressor correlates with work engagement and burnout. The work environment is fraught with high workloads, resulting in stress for employees. The cost of employee stress and ill health to organisations and society is reported to be high due to lost productivity and healthcare costs. The current study used the challenge-hindrance stressor model to determine the impact of appraisal on the relationship between work overload and work engagement/burnout. The current study proposed that employees experience both work engagement and burnout concurrently depending on whether they appraise work overload as a challenge or a hindrance stressor.

An explanatory quantitative design was used to survey employees from multiple organisations in South Africa, yielding 144 full-time, permanently employed respondents. Findings from the study indicated that stressors that were appraised as challenges were linked to work engagement, whereas stressors that were appraised as hindrances were linked to burnout. The study also found that employees appraise work overload as a hindrance not a challenge, resulting in a negative relationship between work overload and work engagement and a positive relationship between work overload and burnout. The implication is that when employees have high workloads, their engagement does not increase; their likelihood of burnout increases. The study determined no positive outcomes of high workloads, only the risk of highly engaged employees becoming fatigued and burnt out. Hence, it is recommended that organisations manage the workloads of their employees.

Keywords: appraisal, burnout, challenge stressor, hindrance stressor, work engagement, work overload

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Chapter 1: Introduction

Introduction

The world of work has changed as a result of new technologies, an increased focus on service and highly competitive conditions (Konze, Rivkin, & Schmidt, 2017). Dewe and Cooper (2017) assert that the changes that have occurred in the 21st-century workplace have caused many people to become overworked. Diestel and Schmidt (2009) agree with this assertion and state that the workload continues to increase due to the greater complexities of technology and the increasing competition. As a result, employees are expected to carry greater workloads, both quantitatively and qualitatively.

In discussing the reasons for increased workloads, Dewe and Cooper (2017) assert that organisations can no longer offer jobs for life, which implies that employees are required to prove their worth in order to remain employed. In addition, organisations are not guaranteed business or success, thus leading them to keep costs down as much as possible. Many organisations achieve this by keeping their workforce lean and expecting employees to be more productive. The result is that employees have heavier workloads and work longer hours. Increased workload and longer working hours have been linked to increased stress in the workplace.

Stress in the Workplace

Globally, stress in the workplace has been considered a risk factor for the health and safety of employees since the early 1970s. Portoghese, Galletta, Coppola, Finco, and Campagna (2014) argue that in the past 35 years, there has been an increase in the prevalence of stress-related illnesses, with 19–30% of the general working population being affected. One of the more prevalent stress-related conditions is burnout, which represents 8% of occupational illnesses according to Portoghese et al. (2014). In South Africa, work-related stress and depression is estimated to cost the economy R40.6 billion annually (Schoeman, 2016).

Houtman, Jettinghoff and Cedillo (2007) define work-related stress as the response that individuals may have when presented with work pressures and demands that are perceived as not matching their knowledge and abilities and that challenge their ability to cope. According to Cohen, Janicki-Deverts, and Miller (2007), stress in itself is not a disease; however, when someone constantly experiences stress for a long time, this could lead to negative outcomes for the individual, the family of the individual and the organisation.

Burnout and Work Engagement

When exposed to occupational stress for extended periods, employees are susceptible to burnout (Maslach, 2003), which is in contrast to work engagement (Moeller, Ivcevic, White, Menges, & Brackett, 2018). Work engagement is defined as a persistent and positive motivational state of fulfilment (Maslach, 2003). Work engagement has been reported to be an optimal form of motivation that correlates positively with employee productivity and wellbeing (Gorgievski & Bakker, 2010). Work engagement is a positive psychological concept that is considered an antithesis to burnout. It is argued that instead of organisations focusing solely on the prevention of burnout, they should also be promoting work engagement (Schaufeli, Leiter, & Maslach, 2009).

Burnout is defined as the cumulative negative reaction to chronic occupational stressors relating to the lack of fit between employees and their jobs, a syndrome that is characterised by chronic exhaustion, cynicism and professional inefficacy and is the result of prolonged exposure to chronic stressors at work (Portoghese et al., 2014). Burnout has been linked to negative organisational outcomes, including absenteeism and lower job performance (Bakker, Demerouti, & Sanz-Vergel, 2014).

Work engagement has been found to be positively associated with self-reported health and reduced depression incidences and to have a positive relationship with desirable organisational outcomes such as organisational commitment and reduced intention to leave (Bakker & Demerouti, 2007). Engaged employees are said to be more satisfied with their jobs and to perform better and are seen to report being healthier (Leiter

& Bakker, 2010). Hakanen and Schaufeli (2012) concur with Bakker and Demerouti (2007) and state that engaged employees have positive self-rated health and reduced depression tendencies.

Opposite outcomes have been demonstrated for work engagement and burnout, with work engagement indicating positive outcomes for the individual and the organisation in contrast to the negative outcomes of burnout. Promoting work engagement and preventing burnout can be seen as important in ensuring the wellbeing of employees, which should translate to the success of the organisation.

The school of thought (Maslach, 2003; Maslach, Schaufeli, & Leiter, 2001) that implies that work engagement is the opposite end of the same continuum infers that in order to prevent burnout, organisations should put measures in place to increase work engagement. However, Moeller et al. (2018) have started to support Schaufeli, Taris, and Van Rhenen (2008) who argue that burnout and work engagement are distinct constructs that happen to be negatively related. If these constructs are distinct, it is possible that employees could exhibit signs of both burnout and work engagement simultaneously, which means that promoting employee wellbeing is not simply preventing burnout or promoting work engagement but undertaking both.

Moeller et al. (2018) found that some employees exhibited signs of both engagement and burnout but were unable to determine why this only occurred in certain employees. Bakker et al. (2014) state that research has focused on situational and personal factors as antecedents of burnout or work engagement with the result that situational factors seem to play a more active role in the development of these two aspects. The transactional theory of stress of Lazarus and Folkman (1984) states that the experience of a stressful event is based on the appraisal given by the individual to that event. The theory posits that stressful situations are typically appraised as either potentially threatening or promoting growth, mastery and learning, and this appraisal will determine the coping mechanism.

Challenge-Hindrance Stressor Theory

Grounded in the transactional theory of stress, the challenge-hindrance stressor theory categorises work-related stressors into two categories, challenges and hindrances. Challenge stressors are defined as job stressors that cause strain but also provide opportunities for high performance, thus creating a sense of accomplishment if one is successful in overcoming them. Because challenge stressors are appraised as promoting personal growth, they elicit positive responses that help the individual to cope with the stressors (Cavanaugh, Boswell, Roehling, & Boudreau, 2000). Hindrance stressors are demands that will more likely discourage the achievement of personal goals and learning.

In conceptualising this theory, Cavanaugh et al. (2000) required respondents to categorise certain well-known stressors into typical challenge stressors and typical hindrance stressors. Typical challenge stressors were found to be high workload, increased job scope and increased job responsibility whereas typical hindrance stressors included factors such as politics, job insecurity and red tape. Some researchers have been able to duplicate these typical challenge and hindrance stressors (LePine, Podsakoff, & LePine, 2005; Podsakoff, LePine, & LePine, 2007), while other researchers have found that certain stressors are not easily categorised and determining whether the stressor serves as a challenge or a hindrance stressor is situational (Bakker & Sanz-Vergel, 2013; Webster, Beehr, & Love, 2011).

In stress research, work overload has been identified as a work-related stress (Banovcinova & Baskova, 2014; Gray-Stanley & Muramatsu, 2011). Yet there is also evidence that work overload can be positive for the employee and the organisation because it is considered a challenge stressor and thus has the potential to promote high performance and employee wellbeing (Cavanaugh et al., 2000; Liu & Shi, 2010). However, other research states that work overload is not always seen as a challenge stressor; it can also be seen as a hindrance stressor, discouraging and inhibiting the achievement of personal goals, but this depends on the individual (Bakker & Sanz-Vergel, 2013; Webster et al., 2011).

Purpose of the Study

The current study aimed to investigate the role of appraisal in the relationship between work overload and work engagement/burnout.

Research aims - The research proposed that work overload is simultaneously a challenge stressor and a hindrance stressor. The aim of the research was to investigate if work overload appraised as a challenge stressor positively correlated with work engagement and negatively correlated with burnout and vice versa when work overload was appraised as a hindrance stressor. Furthermore, the research aimed to investigate whether work engagement and burnout were negatively correlated constructs or were direct opposites.

Problem statement - Work engagement has been identified as an optimal form of motivation, whereas burnout is said to be detrimental to health and therefore not seen as positive for organisations (Moeller, et al., 2018). Burnout is said to result from prolonged exposure to stress, including work overload (Maslach, 2003). Many employees in today's organisations seem to have heavier workloads, yet organisations are working hard to improve the engagement of their employees and reduce burnout. Therefore, the purpose of the research is to investigate how organisations can increase work engagement and reduce burnout without changing the levels of workload for employees.

Research *questions* - The study aimed to answer the following questions:

- What is the relationship between work overload appraisal, work engagement and burnout?
- Are burnout and work engagement separate constructs that happen to be negatively correlated, or are they complete opposites on the same continuum?

Knowledge gained from the study will assist organisations in implementing interventions that are focused on individual appraisal, to manage or reduce burnout, and maintain or increase work engagement. Individual interventions include training employees on how to identify challenge and hindrance appraisal, so that they can transfer this knowledge to when they are appraising work overload as a challenge or a hindrance.

This awareness can be used to maintain the challenge appraisal to increase or maintain work engagement or reduce the hindrance appraisal so that they can change this appraisal to manage or reduce burnout.

Conclusion

This chapter presented an overview of the study and introduced the main constructs, which are work overload, burnout, work engagement and challenge and hindrance appraisal of stressors. For the purpose of this research, workload, work overload, high workload and heavy workload are presumed to represent the same construct. The following literature review provides details of available literature pertaining to the constructs, and the relationships between the constructs.

Chapter 2: Literature Review

Introduction

Chapter 1 introduced the variables that were investigated in this study. These included stress, work-related stress, work overload and the impact of workload on the individual. The concept of employee wellbeing was discussed in the form of work engagement, which is the positive and aspirational form of wellbeing. Employee wellbeing was also discussed in the form of burnout, which is the negative form of wellbeing that should be prevented and reduced in employees. The challenge and hindrance stressor theory was presented, which highlighted the possibility that work overload may be appraised as both a challenge and a hindrance depending on the individual. Another possibility that was introduced was that work engagement and burnout may not be complete opposites but distinct constructs that happen to be negatively correlated.

This chapter considers and compares existing research that is pertinent to the current study. Work overload as a work-related stressor and the potential causes and outcomes of work overload are initially examined. A discussion of the challenge-hindrance stressor theory and the wellbeing outcomes linked to this theory follows. Thereafter, the concept of burnout is investigated together with its dimensions, precursors and outcomes. Work engagement including its dimensions, precursors and outcomes are subsequently discussed, and the possibility of a downside to work engagement is introduced. Finally, the chapter presents a theoretical framework of the relationships that are examined in this study together with the hypotheses tested.

Work-Related Stress and Work Overload

Stress is defined as a person's psychological response to a situation where something is at stake for the individual and where the person's capacity to cope is exceeded (LePine, LePine, & Jackson, 2004). Fernet and Austin (2014) offer a definition that is specific to the workplace, describing work-related stress as a situation that arises when there are demands in the workplace greater than an individual's ability to adapt.

The definition of Fernet and Austin (2014) is considered appropriate for this study because it refers to demands in the workplace, which is the focus of the current study.

Stress has been recognised for a long time and was introduced into the scientific world in 1946 by Hans Selye (Aniţei, Chraif, & Ioniţă, 2015). However, work-related stress only became an important issue for society with much scientific attention and research during the latter part of the 20th century. At this time, work-related stress became understood as hazardous to employees' health and a factor that lowered their productivity (Väänänen, Anttila, Turtiainen, & Varje, 2012).

Work overload has been established as a work-related stressor that demonstrates similar consequences to other work-related stressors (Bateman, 1980). Work overload is defined by Jex (1998) as the perception of employees that they have more work than they are able to cope with within a given timeframe. Kuschel (2015) adds that work overload occurs when there is insufficient time to complete the work, thus creating frustration and stress.

French, Caplan, and Van Harrison (1982) identified two types of work overload, quantitative and qualitative work overload.

Quantitative work overload – Quantitative work overload is defined as attitudes relating to excessive work or excessive pressure to complete the work in addition to working too fast or too hard (French et al., 1982). Quantitative work overload comprises substantial time pressure and excessive amounts of work and has been shown to relate positively to impaired psychological wellbeing (Konze et al., 2017). Kuschel (2015) reports that employees may work longer hours as a way of coping with unfinished work, which implies that work overload and long working hours "are two sides of the same coin" (p. 4).

Qualitative work overload – Qualitative workload is defined as the perception of an employee that he/she either does not have the time to produce the quality required or that he/she does not have the skills to perform the work required. Freeney and Tiernan (2009) argue that although qualitative work overload is also a problem for employees, there is a general bias towards assessing work overload in terms of quantitative work overload only. This is probably because it is difficult to assess qualitative work overload. The authors

add that it is important for organisations not to stop at the volume of work when assessing work overload but to acknowledge and value that qualitative work overload may exist (Freeney & Tiernan, 2009).

Role overload – A related but different concept is that of role overload, which is the degree to which individuals perceive themselves as being under pressure due to the number of responsibilities and commitments in their lives (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). Role overload is, therefore, having too much to do and not enough time in which to do it, which often leads to a feeling of being rushed and 'time-crunched' (Kuschel, 2015). The difference between role overload and work overload is that work overload refers to perceptions relating to the work environment only, whereas role overload is a broader term that relates to overload in all aspects of an individual's life, including work, home and social life. This study only focuses on work overload.

Potential causes of work overload. According to Kuschel (2015), causes of work overload can be grouped into five categories. The first of these involves organisational elements; companies are adopting flatter organisational structures, resulting in less staff with more tasks. Secondly, cultural norms are identified as potentially causing work overload because in many societies, work and being busy are emphasised at the expense of activities that are not work related; being busy is a privileged position for people with high status. Thirdly, technology enables work to permeate every aspect of the employee's life since emails and other work-related tasks can be accessed from anywhere and at any time, even when the person is supposed to be resting. Information overload comprises the fourth category. Information overload means that there is too much information for the individual to use and as a result, the employee must sort through a greater amount of information to make decisions, which creates extra work and thus work overload. Finally, the many roles of individuals that result in family and non-work commitments such as community work or caring for children or the elderly create extra pressure on the individual, resulting in the feeling of being overloaded.

Work overload research. Work overload has been studied from different perspectives. Table 1 presents selected studies on work overload and the various focus areas.

Table 1

Selected studies on work overload

Author and year	Sample and sample size	Country	Aim	Method	Main findings
Konze, Rivkin, and Schmidt (2017)	139	Germany	Examine the moderating effect of job control on the adverse effects of quantitative workload and emotional dissonance as distinct work-related demands on emotional exhaustion over time	Electronic self-report questionnaire	Job control buffers the adverse effects of quantitative workload while it reinforces the adverse effects of emotional dissonance on emotional exhaustion.
Fugate (2010)	100	United States of America	Test the impact of quantitative and qualitative overload on affective and performance measures of strain	Experiment	Qualitative overload produced more affective strain; the combination of qualitative and quantitative overload is no more stressful than qualitative overload alone.
Artazcoz, Cortes, Escriba-Aguir, Cascant, and Villegas (2008)	3 950 men and 3 158 women	Spain	Analyse the relationship between long working hours and several health indicators and examine if there are gender differences	Face-to-face interviews	The relationship between long working hours and health/health-related behaviours was more consistent for men: For men, 6 out of 7 outcomes were correlated with working long hours; for women, long working hours were only related to smoking.
Rauhala, Kivimaki, Fagerstrom, Elovainio, Virtanen, Vahtera, Rainio, Ojaniemi, and Kinnunen (2007)	877 nurses	Finland	Investigate the degree to which work overload was likely to cause increased sickness and absenteeism among nurses	Observational cohort study	There was a linear trend between increasing workload and increasing sick leave.
Ilies, Schwind, Wagner, and Johnson (2007)	106 university employees	United States of America	Examine the effects of daily workload on employee affective states, work-to-family conflict and home social behaviour	2 daily surveys at work and 1 daily survey from home for 2 weeks; telephonic interview of the spouse	Workload (hours worked and perceptions) was related to negative affect both at work and at home and perceptions of work-to-family conflict. Employee social behaviours at home were predicted by both work-to-family conflict and home positive affect.

Theories on work overload and employee reactions. One of the questions raised in previous research relates to how individuals react differently to work overload. The current research also attempts to answer this question. Several theories have attempted to describe why some people have positive outcomes that include engagement despite their high work overload while others have negative reactions that include burnout. The two theories discussed in this section attempt to address this issue, and proposals are given to determine the different reactions of employees to high work overload. These theories appear to align with the challenge-hindrance stressor theory of Cavanaugh et al. (2000) that is used as the framework in this study.

The Job Demand-Control (JD-C) theory of Karasek (1979) focuses on two dimensions of the work environment, job demands and job resources. In this theory, job demands refer to the work overload and job resources refer to decision latitude, which is the employee's ability to control the work activities (Van der Doef & Maes, 1999). The JD-C theory states that workplace stress is a function of the demands of the job and how much control one has over one's responsibilities, that is, the level of decision latitude. Where an employee has a high level of decision latitude over the work process, even if the demands are high, the employee's stress is reduced and learning is increased. High demands combined with a high level of control or decision latitude result in increased learning, motivation and the development of skill (Shultz, Wang, Crimmins, & Fisher, 2010; Van der Doef & Maes, 1999). This theory explains that high job demands such as high work overload are not necessarily harmful on their own, but they can result in strain if they are accompanied by low levels of decision latitude (Wall, Jackson, Mullarkey, & Parker, 1996).

Another theory that refers to job demands and work overload is the Job Demands-Resources (JD-R) model of Bakker and Demerouti (2007). This theory states that strain is a response to imbalances between demands on the employees and the resources that they possesses to manage such demands. Each occupation is said to have specific risk factors associated with job stress, and these can be classified into job demands and job resources. Job demands are the social, psychological and organisational aspects of the job that need sustained physical and/or psychological effort

and skills. Job demands are associated with psychological and/or physical costs, and examples include work overload, work pressure and emotional demands. Job resources are the aspects of the job that are functional in achieving work goals. These resources can reduce job demands and the associated cost, and examples include career opportunities, coaching by the supervisor, role clarity and autonomy. Job resources can stimulate personal growth, learning and development. According to this theory, chronic job demands may exhaust employees' mental and physical resources, which may in turn lead to depletion of energy and health problems. Job resources are said to have the ability to buffer the effects of job demands (Bakker & Demerouti, 2007).

The two theories discussed in this section highlight some of the reasons why certain employees do not experience negative stress responses despite high job demands such as work overload. The JD-C theory argues that when high job demands are accompanied by high levels of decision latitude, the result is learning and growth, and the JD-R theory states that when high job demands are accompanied by high levels of job resources, the negative effects of these job demands are reduced.

The following section discusses the theoretical framework of this study, that is, the challenge-hindrance stressor theory of Cavanaugh et al. (2000). Similar to the theories discussed above, the challenge-hindrance stressor theory states that the appraisal of job demands as either challenges or hindrances determines whether those job demands are found to be motivating or taxing for personal growth (Podsakoff et al., 2007).

The Challenge-Hindrance Stressor Theory

Generally, research supports the notion that unfavourable working conditions, also known as stressors, have a negative influence on both physical and psychological health. Occupational stress research has started to acknowledge that there are positive and negative stressors that have positive and negative impacts on individual and organisational outcomes (Webster et al., 2011).

The challenge-hindrance stressor theory (Cavanaugh et al., 2000) is based on Lazarus and Folkman's (1984) transactional theory of stress, which asserts that stressful situations are appraised as potentially threatening or as potentially promoting growth, mastery and learning. The challenge-hindrance stressor theory categorises work demands into challenge stressors and hindrance stressors.

Challenge stressors are stressors that are perceived to have a favourable relationship with individual and organisational outcomes (Webster et al., 2011). Challenge stressors are job demands that cause strain but also provide opportunities for high performance and create a sense of accomplishment when the difficult situation is overcome successfully. Typical challenge stressors include high workload, increased job scope and increased job responsibility (Cavanaugh et al., 2000; Crawford, LePine, & Rich, 2010).

Hindrance stressors are perceived to have unfavourable individual and organisational outcomes (Webster et al., 2011). Hindrance stressors are the demands that will most likely discourage the achievement of personal goals and learning. Overcoming hindrance stressors may at best result in adequate performance without the sense of accomplishment that accompanies high performance. Typical hindrance stressors include politics, job insecurity and red tape (Cavanaugh et al., 2000; Crawford et al., 2010).

Classification of challenge and hindrance stressors. In their initial research, Cavanaugh et al. (2000) categorised typical challenge and hindrance stressors. In following the work of Cavanaugh et al. (2000), workplace research assumed that interpretation of a challenge and a hindrance was the same for most people. According to Tadić, Bakker, and Oerlemans (2015), certain demands are typically perceived by most employees as challenges and others are typically perceived as hindrances, confirming the original classification. However, individual appraisal of these stressors was not accounted for (Webster et al., 2011).

This categorisation of stressors into typical challenge and hindrance stressors (Cavanaugh et al., 2000) has not been accepted by everyone. Some researchers (Bakker & Sans-Vergel, 2013; Searle & Tuckey, 2017; Webster et al., 2011) advocate individual appraisal, thus challenging the original categorisation. These authors argue that stressors are not easily differentiated into challenge or hindrance stressors, that the process of appraisal at the time determines whether a stressor is appraised as a challenge or a hindrance and that certain stressors can be simultaneously appraised as both a challenge and a hindrance. These researchers argue that the appraisal of the job demand (by the individual or at the particular time) determines the organisational outcome linked to the job demand (Bakker & Sans-Vergel, 2013; Searle & Tuckey, 2017; Webster et al., 2011).

Selected research on challenge and hindrance stressors. The table below highlights research that has been conducted on challenge and hindrance stressors and the findings.

Table 2

Selected studies on challenge and hindrance stressors

Author and year	Sample and sample size	Country	Aim	Method	Main findings
Tadić, Bakker and Oerlemans 2015)	158 primary school teachers	Croatia	Integrate the challenge-hindrance stressor framework in job demands-resources (JD-R) theory	Electronic questionnaire and diary study	Daily hindrance job demands had a negative relationship with daily positive affect and work engagement, buffered by daily job resources. Daily challenge demands had a positive relationship with positive affect and work engagement, boosted by daily job resources.
Bakker and Sans-Vergel (2013)	120 home healthcare nurses	Netherlands	Test how nurses categorise work pressure and emotional demands into either challenge or hindrance job demands	Electronic self-report questionnaire	Nurses found work pressure as a hindrance job demand and emotional demands as a challenge job demand.
Karatepe, Beirami, Bouzari, and Safavi (2014)	195 employees and 30 supervisors	Cyprus	Investigate if challenge stressors as manifested by work overload and job responsibility heighten work engagement and organisationally valued job outcomes	Paper questionnaires	Work engagement fully mediated the effects of challenge stressors on organisational affective commitment and job performance. Employees who experience challenge stressors are engaged in their work and therefore display positive job outcomes.
Min, Kim, and Lee (2015)	232 hotel employees	South Korea	Examine the role of psychological capital as a moderator between stressors and burnout	Pencil and paper questionnaires	Both challenge and hindrance stressors displayed positive associations with burnout. Overall, correlation between challenge stressors and engagement was negative and more prevalent among those with low psychological capital. The direct negative effect of hindrance stressors on engagement suggested that hindrance stressors prevented employees from fully engaging in their work.

Author and year	Sample and sample size	Country	Aim	Method	Main findings
Webster, Beehr, and Love (2011)	479 employees	United States of America	Test if certain stressors are appraised as either challenge or hindrance stressors. Test if primary appraisal mediates the relationship of the stressors with strains and other outcomes	Electronic self-report questionnaire	Workload, role ambiguity and role conflict primarily appraised as challenges or hindrances and could be perceived as both to varying degrees. Primary appraisal partially mediated the stressor-outcome relationship.
Crawford, LePine, and Rich (2010)	64 samples from 55 manuscripts and articles	United States of America	Show how job demands typically appraised as challenges are consistently positively related to engagemetn and those typically appraised as hindrances are consistently negatively related to engagement	Meta-analysis	Both challenge and hindrance stressors were positively related to burnout, but challenge stressors had a strong positive association with work engagement and hindrance stressors had a strong negative association with work engagement.
Liu and Shi (2010)	239 employees in non-state-owned enterprises	China	Investigate the relationship between challenge and hindrance stressors with the three sub-facets of work engagement	Pencil and paper questionnaires	Challenge stressors were positively related to vigour, dedication and absorption whereas hindrance stressors were negatively related.
Rodell and Judge (2009)	100 full-time employees	United States of America	Evaluate the impact of challenge and hindrance stressors on organisational citizenship and counterproductive behaviours	Electronic daily self-report questionnaire for 10 days	Challenge stressors are positively linked to Organisational Citizenship Behaviour (OCB) but are also indirectly positively related to counterproductive behaviour through anxiety. Challenge stressors did exhibit a total negative relationship with counterproductive behaviour.

Challenge stressors and wellbeing outcomes. Tadić et al. (2015) found that the type of job demands encountered by employees is important and that all demands are stressful because they require energy and effort. Hindrance demands were found to represent unnecessary barriers that employees needed to address. Hindrance stressors were found to prevent wellbeing because they required extra effort and energy that was over and above the energy needed to attain work goals (LePine et al., 2005). Challenge demands were found to promote wellbeing through the use of job resources when encountering these demands (Tadić et al., 2015).

LePine et al. (2004) highlighted the "potential tradeoff with respect to perceptions of challenge stress" (p. 889), meaning that although challenge stress is associated with learning and growth, it is still costly in respect of personal wellbeing. According to LePine et al. (2004), there is a positive relationship between all types of stress, including challenge and hindrance stress, and exhaustion, a component of burnout.

Webster et al. (2011) state that challenge stressors may not cause a strong negative psychological strain, but they still have a negative impact on physical health. An example would be employees with a heavy workload who may not demonstrate negative psychological effects but who may still experience physical exhaustion and even illnesses such as headaches or sleep disturbances as one would experience during burnout. Furthermore, Webster et al. (2011) state that even if someone experiences psychological strain, challenge stressors such as work overload could cause him/her to work harder and longer, thus affecting physical health. In such situations, the person experiences negative physical reactions such as chronic fatigue (Webster et al., 2011).

Hence, although the stressor may be appraised as a challenge and does not seem to cause negative psychological effects, it may still be damaging employee wellbeing. LePine et al. (2004) claim that there is a positive relationship between all types of stress irrespective of whether the stressor is considered a challenge, a hindrance or exhaustion, the latter being a component of burnout.

Burnout

Maslach et al. (2001) assert that burnout was first mentioned in the context of work in the 1970s to describe the difficulties that can arise when the relationship between people and their work deteriorates. The understanding was that those who burn out deplete their energy resources and lose their dedication to their work (Bakker et al., 2014).

Definitions of burnout place emphasis on different components. Certain definitions emphasise the fatigue component. For example, the definition by Pines and Aronson (1988) as cited in Mäkikangas, Feldt, Kinnunen, and Tolvanen, (2012) describes burnout as physical, mental and emotional exhaustion that is caused by being involved in emotionally demanding situations for prolonged periods. Another definition of burnout focuses on the attitudinal component of burnout, which is cynicism (Mäkikangas et al., 2012). A commonly used definition of burnout is that of Maslach et al. (2001), which indicates three dimensions. Here, burnout is defined as a persistent, work-related state of ill-being characterised by the three dimensions of exhaustion, cynicism and reduced professional efficacy (Maslach et al., 2001).

The abovementioned three dimensions of burnout may seem to overlap with earlier concepts, for example, stress, depression and anxiety. What differentiates burnout from these concepts is that burnout is context specific in that it is only used in the work context (Salmela-Aro, Rantanen, Hyvönen, Tilleman, & Feldt, 2011). Supporting the work context specificity of burnout, González-Morales, Peiró, Rodríguez, and Bliese (2012) define burnout as a "special type of occupational strain" (p. 44) resulting from interpersonal work demands. Demerouti, Bakker, and Leiter (2014) define burnout as a long-term consequence of poor work conditions.

Dimensions of burnout. Schaufeli et al. (2008) assert that even though burnout is an empirically proven construct, the term itself is commonly used as a metaphor to describe a state in which an individual is experiencing mental weariness. Schaufeli et al. (2009) add that there are critics who maintain that burnout is not a multidimensional construct but is equivalent to exhaustion, which is considered the only hallmark of burnout.

Maslach (2003) found three dimensions to burnout in her research and thus denies that burnout is equivalent to exhaustion. She argues that burnout is multidimensional and goes beyond the individual stress experience of exhaustion by including how one feels and responds to the job through cynicism and inefficacy, an evaluative component regarding one's ability. Schaufeli et al. (2009) agree and state that scientific research has used exhaustion, cynicism and reduced professional efficacy, the three-dimensional description of burnout.

According to Laschinger and Fida (2014), recent work has focused on burnout as consisting of two factors. The authors argue that burnout studies have demonstrated consistent results for emotional exhaustion and cynicism but no consistency regarding inefficacy. González-Morales et al. (2012) agree that burnout is characterised by exhaustion and withdrawal. Demerouti et al. (2014) also state that burnout is characterised by the simultaneous experience of exhaustion and disengagement from the job. Bakker and Costa (2014) agree and assert that individuals who are burnt out experience high levels of chronic fatigue and at the same time distance themselves cognitively and emotionally from work activities. The current study uses the three dimensions given by Maslach et al. (2001).

Exhaustion – Exhaustion is considered the emotional component of burnout (Salmela-Aro, Rantanen et al., 2011) and is described as the draining of emotional energy and the feelings of strain and chronic fatigue that may be the result of overtaxing work (Maslach et al., 2001; Salmela-Aro, Rantanen et al., 2011). Maslach et al. (2001) argue that exhaustion is the most obvious way that burnout manifests itself and that it is the most widely reported and the most thoroughly analysed dimension of burnout. González-Morales et al. (2012) agree and state that exhaustion is the basic burnout experience in which individuals have feelings of being overextended, perceiving their physical and emotional resources to be depleted. Exhaustion is said to be a long-term consequence of prolonged exposure to certain job demands, a consequence of intensive cognitive, affective and physical strain (Demerouti et al., 2014).

According to Elshaer, Moustafa, Aiad and Ramadan (2018), emotional exhaustion has been identified as the hallmark of burnout, implying that one does not need to

experience all three dimensions of burnout to be classified as experiencing burnout and that exhaustion is typically considered a good proxy. Laschinger and Fida (2014) state there is the view that emotional exhaustion is the core element of burnout, which results in cynicism, withdrawal from work and feelings of inefficacy after time. Maslach et al. (2001) disagree and argue that exhaustion is a necessary criterion for burnout but continue that exhaustion is not sufficient since it only reflects the stress dimension aspect of burnout and fails to capture the critical aspects of people's relationships with their work.

Cynicism – Cynicism is the cognitive component of burnout (Salmela-Aro, Rantanen et al., 2011). Maslach et al. (2001) argue that when people are exhausted, they are prompted to distance themselves cognitively and emotionally from their work as a way to cope with the work overload, which is the authors' definition of cynicism. Maslach et al. (2001) argue further that there is a strong relationship between exhaustion and cynicism since people develop an indifferent or a cynical attitude due to exhaustion.

Portoghese et al. (2014) define cynicism as a detachment from work due to exhaustion, which reflects as a loss of enthusiasm and passion for work. Other scholars also describe cynicism as having a negative, distant and indifferent attitude towards one's job and even towards one's colleagues (Bakker & Costa, 2014; Demerouti et al., 2014; Maslach et al., 2001; Salmela-Aro, Tolvanen et al., 2011). Employees who have high cynicism are said to have lost interest in their work and do not consider work to have meaning. González-Morales et al. (2012) elaborate and define cynicism as withdrawal that is a negative and callous or excessively detached response to different aspects of the job.

Professional inefficacy – Salmela-Aro, Rantanen et al. (2011) state that reduced professional efficacy or inadequacy is the behavioural component of burnout. Professional inefficacy is defined as the belief that individuals are no longer effective in fulfilling their job responsibilities. A person with inadequacy is said to have reduced feelings of competence or accomplishment in both the job and the organisation (Maslach et al., 2001; Salmela-Aro, Tolvanen et al., 2011). According to Portoghese et al. (2014), professional inefficacy relates to feelings of ineffectiveness and lack of productivity and achievement, representing the loss of confidence in one's work.

According to Maslach et al. (2001), work situations with chronic overwhelming demands that are exhausting and induce cynicism reduce an individual's sense of effectiveness, giving rise to professional inefficacy. The authors further argue that it is difficult for individuals to have a sense of accomplishment when they are exhausted or feeling cynical, which points to the complex relationship between exhaustion, cynicism and inefficacy (Maslach et al., 2001).

Maslach et al. (2001) continue that inefficacy ensues when there is a lack of relevant resources, but exhaustion and cynicism are due to work overload and social conflict. González-Morales et al. (2012) support this and state that inefficacy develops independently from exhaustion and cynicism and is less frequently observed.

Precursors of burnout. The development of burnout is discussed together with situational and individual factors. Stressful aspects of the work environment (i.e. situational factors) may be more important predictors of burnout than personal characteristics or individual differences (i.e. individual factors) (Bakker et al., 2014).

Situational factors – According to the JD-R model, situational factors are factors that include the interaction between job demands and job resources. When job demands are high and job resources are low, there is a higher likelihood of developing burnout (Bakker & Costa, 2014). The role of job demands in burnout was confirmed by Alarcon (2011) who demonstrated that workload, role conflict and role ambiguity were found to be important predictors of burnout. Job demands are said to have a stronger correlation with burnout than job resources. However job resources have a negative relationship with burnout, especially with the cynicism component (Alarcon, 2011). Job resources have also been found to play a buffering role in the relationship between burnout and job demands (Bakker et al., 2014)

Maslach et al. (2001) state that certain job characteristics relating to quantitative and qualitative work overload have been consistently and strongly linked to burnout. In addition to job characteristics, it was thought that burnout was linked to certain occupations such as the helping professions, but further research was unable to support

this assertion since burnout was found in a variety of occupations (Maslach et al., 2001). In addition, the organisation is said to contribute to the development of burnout in that burnout develops in organisational cultures in which employees feel that their psychological contracts have been broken, thus eroding the notion of reciprocity that is so important in maintaining employee wellbeing (Maslach et al., 2001).

Individual factors – Individual factors include both socioeconomic status and personality variables. Hakanen, Bakker, and Jokisaari (2011) studied Finnish adolescents and found that socioeconomic status predicted burnout 35 years later. From a personality perspective, it has been argued that the misfit between job demands and one's personality also increases the likelihood of burnout (Bakker & Costa, 2014). Studies by Alarcon, Eschleman, and Bowling (2009) and Morgan and De Bruin (2010) found that certain personality traits correlated with each of the three dimensions of burnout.

Maslach et al. (2001) discuss different perspectives that emphasise different aspects of the development of burnout. There is the perspective that states that the best and most idealistic workers can experience burnout; one needs to have a fire in order to burn out. This perspective asserts that these dedicated employees eventually over work to support their ideals, with the result that they become exhausted and cynical when their sacrifice is not enough to achieve their goals. Another perspective is that burnout results from chronic exposure to job stressors. If this perspective is taken further, the implication would be that people would burn out later in their careers, which has not been supported by research according to Maslach et al. (2001). Another perspective is offered by Van den Heuvel, Demerouti, Bakker, and Schaufeli (2010) who suggest that work burnout is influenced by the way that individuals approach and respond to challenges in their lives.

Maslach et al. (2001) identified six areas of work life that were considered important precursors of burnout. These include a manageable workload, job control, rewards, community, fairness and values. A mismatch between an individual's expectations and one or more of these areas may cause burnout. Each area has a different relationship with each dimension of burnout, and each area plays a mediating role for the other areas. Individuals are willing to tolerate different levels of mismatch, but this depends on the importance of the area of mismatch and the pattern of the other areas.

An example of this is people who are able to tolerate a high work overload because they feel that they have control of their work (Maslach et al., 2001). Schaufeli et al. (2009) concur and state that burnout is driven by an imbalance between demands and resources in addition to the conflict between personal values and the values of the organisation or the conflict between the stated values of the organisation and the values as they are lived in the organisation.

Maslach et al. (2001) share other individual factors that were studied, including age (younger employees were found to have higher levels of burnout) and marital status (unmarried men were found to be more prone to burnout). Gender and sex were not found to be strong predictors of burnout. In addition to the different precursors, different outcomes of burnout have also been studied (Laschinger & Fida, 2014).

Outcomes of burnout. The outcomes of burnout have been found to be both health related and job related as shown in the selected studies on burnout presented in Table 3.

Table 3

Selected studies on outcomes of burnout

Author and year	Sample and sample size	Country	Aim	Method	Main findings
Liu and Lo (2018)	1 099 reporters	Taiwan	Examine the relationships among workload, news autonomy, burnout, job satisfaction and turnover intention	Questionnaire	Burnout negatively correlated with job satisfaction, which in turn had a significant effect on turnover intention.
Hakanen and Schaufeli (2012)	1 964 dentists	Finland	Investigate whether or not work-related indicators of well-being (burnout and work engagement) spillover and generalise to context-free well being (depressive symptoms and life satisfaction)	Questionnaire	Burnout predicted depressive symptoms and life dissatisfaction.
Salmela-Aro, Tolvanen, and Nurmi (2011)	292 students	Finland	Examine whether or not individuals' social strategies measured during their university studies had an impact on burnout and work engagement 18 years later	Questionnaire	Higher levels of functional social strategies in the form of high optimism and low social withdrawal at university level predicted lower levels of burnout 10 years later.
Ahola, Väänänen, Koskinen, Kouvonen, and Shirom (2010)	7 396 forest industry employees	Finland	Investigate whether or not burnout was related to all-cause mortality	Questionnaire and mortality data extracted from registry	Overall burnout and the exhaustion component were related to all-cause mortality for participants under 45 years old.

Author and year	Sample and sample size	Country	Aim	Method	Main findings
Jourdain and Chenevert (2010)	1 636 nurses	Canada	Examine the role of burnout in the relationship betweens stress factors related to nurses' work and social environment and intention to leave the profession	Questionnaire	Emotional exhaustion and depersonalisation (cynicism) were linked to psychosomatic complaints and professional commitment, which in turn were related to the intention to leave the profession.
Swider and Zimmerman (2010)	115 studies	United States	Examine the processes and the magnitude of the relationships between the components of job burnout and the major work outcomes	Meta-analysis	Emotional exhaustion and depersonalisation (cynicism) were negatively related to absenteeism, turnover and job performance. Personal accomplishment was negatively related to absenteeism and positively related to job performance
Visser and Rothmann (2010)	146 call centre agents	South Africa	To investigate the relationship between six characteristics of call center work environments, burnout, affective commitment and turnover intentions.	Questionnaire	Work overload, lack of career opportunities, skill variety and emotional labour were the most important predictors of burnout.

Managing burnout. Interventions that are aimed at reducing stress-related problems including burnout can be classified into three categories. Primary interventions are aimed at reducing the known risk factors among all employees to prevent the development of burnout. Secondary interventions are aimed at a selected group of employees who are assessed to be at a high risk in order to prevent burnout from actualising. Tertiary interventions are aimed at those who are already suffering from burnout in order to prevent adverse consequences (Ahola, Toppinen-Tanner, & Seppänen, 2017).

According to Ahola et al. (2017) and Awa, Plaumann, and Walter (2010), another way of classifying burnout interventions is according to the target of the intervention. Some interventions are targeted at the individual in an attempt to increase the employee's psychological resources and enhance the ability to cope with work stressors. Other interventions are targeted at the environment in an attempt to change the context and the sources of stress. It is also possible to have a combination of interventions targeted at both the individual and the environment. Awa et al. (2010) found that the interventions that were targeted at the individual were able to reduce burnout in the short term (six months or less) and a combination of both individual and environment interventions were able to achieve longer effects that lasted over 12 months.

According to Schaufeli et al. (2009) and Laschinger and Fida (2014) in Sweden and the Netherlands, burnout is considered a treatable medical condition, indicating the seriousness of burnout. However, in most countries, burnout is not recognised as a medical condition and, therefore, managing burnout relies on interventions aimed at either the individual or the organisation or both.

Burnout and work engagement. Bakker et al. (2014) state that research on burnout stimulated research on work engagement. Employees who were engaged were compared with employees who were burnt out. The engaged employees were energetic and had an effective connection with their work, considering their work challenging and

not stressful and demanding the way that employees who were burnt out viewed their work.

Maricuțoiu, Sulea, and Iancu (2017) argue that burnout and work engagement are viewed as different types of workplace wellbeing. The relationship between the two has been debated, with one side arguing that burnout and work engagement are opposite ends of the same construct (Cole, Walter, Bedeian, & O'Boyle, 2012; Maslach et al., 2001). The other side of the argument is that although work engagement and burnout are highly correlated, they do not represent the same construct (Hakanen & Schaufeli, 2012; Schaufeli et al., 2008).

According to Maslach (2003), preventing burnout in today's organisation is no longer enough; there is the need to promote work engagement as a way of managing burnout. Hakanen and Schaufeli (2012) argue that there is a correlation between depressive symptoms and burnout and between work engagement and life satisfaction. These authors argue for the importance of focusing on interventions that aim at lowering the chances of burnout and improving work engagement to decrease the likelihood of depressive symptoms and improve the likelihood of life satisfaction.

Mäkikangas et al. (2012) found that burnout appeared more stable than work engagement. Work engagement and its dimensions, precursors and outcomes are discussed in the following section.

Work Engagement

According to Schaufeli (2013), work engagement as a concept became popular at the beginning of the 21st century as a result of two converging developments. The first was the increasing importance of human capital and psychological involvement of employees in business, and the second was the increased interest in positive psychological states. Since its inception, the concept of work engagement has become one of the most popular positive psychological constructs to be researched (Shuck, 2011).

The definition of work engagement is approached from different perspectives. Kahn (1990) defined work engagement as being cognitively, physically and emotionally connected to one's role, implying that engagement is employing and expressing one's preferred self during role performance. Another approach to work engagement is that of Harter, Schmidt, and Hayes (2002), which defines engagement as satisfaction, involvement and enthusiasm towards one's work. One of the later definitions is by Macey, Schneider, Barbera, and Young (2011) who define work engagement as possessing purposeful, focused energy towards organisational goals.

Christian, Garza, and Slaughter (2011) discuss whether engagement is a temporarily dynamic state, a stable trait or if it is both a trait and a state. The authors concluded that engagement differs between and within people, resulting in their definition of engagement as an enduring state of mind that refers "to the simultaneous investment of personal energies in the experience or performance of work" (p. 95).

A commonly used definition is that of Schaufeli, Salanova, González-Romá, and Bakker (2002), which defines work engagement as a positive, fulfilling, consistent state of mind. As opposed to employees who are burnt out, persons who are engaged are seen to have an energy and an effective connection with their work (Hakanen & Schaufeli, 2012).

There are two different viewpoints regarding the definition of work engagement (Schaufeli et al., 2002). The first perspective asserts that engagement is the positive antithesis of burnout, as emphasised by Maslach et al. (2001). In terms of this viewpoint, one can use the same instrument to measure burnout and work engagement where high scores indicate burnout and low scores indicate engagement. The implication of the Maslach et al. (2001) viewpoint is that it is unlikely that one would be high in both work engagement and burnout at the same time. The second viewpoint is held by Schaufeli et al. (2002) and considers work engagement as a separate construct that simply happens to be negatively correlated with burnout. This view argues that because someone is not burnt out does not automatically imply that the person is engaged (Schaufeli & Salanova, 2011).

Work engagement is different from employee engagement, which includes the relationship with the organisation. Employee engagement is, therefore, difficult to distinguish from traditional concepts such as organisational commitment and extra-role behaviour (Schaufeli, 2013).

Dimensions of work engagement. The definition of work engagement as a positive state of wellbeing emphasises the multidimensional nature of work engagement that is characterised by three dimensions, vigour, dedication and absorption.

Vigour – Vigour is defined as high levels of energy and resilience and the willingness to invest effort in one's job. Vigour also includes the ability to avoid becoming easily fatigued and to persist despite difficulties (Bakker et al., 2014; Maslach et al., 2001). Vigour has been called the energy dimension of engagement and has been found to be negatively correlated with exhaustion (Demerouti, Bakker, Sonnentag, & Fullagar, 2012; Mäkikangas et al., 2014).

Dedication – Dedication is the strong involvement is one's work. Dedication is accompanied by enthusiasm, challenge and feelings of significance in addition to the sense of pride and inspiration in one's work (Maslach et al., 2001). Dedication is said to be a direct opposite of cynicism, and the continuum that is spanned by these two is known as identification (Bakker et al., 2014).

Absorption – Absorption is the pleasant state of full concentration and total immersion in one's work where one is happily engrossed. Absorption is characterised by time passing quickly and the inability to detach from one's job (Bakker et al., 2014; Maslach et al., 2001).

Precursors of work engagement. Personal resources and job resources are considered important precursors of work engagement. Job resources are said to reduce the impact of strain and job demands and are helpful in achieving goals and stimulating personal growth, development and learning. Job resources are believed to provide

motivation when one is confronted by high job demands. Personal resources are also considered important precursors of work engagement. Engaged employees have been found to differ from other employees in terms of their optimism, self-esteem, resilience, self-efficacy and possession of an active coping style (Bakker, Schaufeli, Leiter, & Taris, 2018).

Job resources – According to Halbesleben (2010) and Christian et al. (2011), job resources are the aspects of the job that help achieve goals, stimulate personal growth and reduce job demands. Job resources have been found to be the strongest predictors of work engagement and were found to contribute to work engagement both daily and over time. In addition, when there was variability in professional skills, work engagement was boosted, even in the presence of high levels of qualitative work overload.

Job demands were found to correlate negatively with engagement. However, the negative relationship between job demands and engagement was found to be weaker than the positive relationship between job resources and engagement (Bakker et al., 2014). Christian et al. (2011) state that there are job characteristics that can facilitate engagement, including autonomy, task variety, task significance, feedback, problem-solving and job complexity. In addition, Christian et al. (2011) indicate social support from both supervisors and colleagues as being associated with engagement.

Personal resources and other individual factors – Personal resources are defined as positive self-evaluations that refer to one's sense of ability to control and affect one's environment positively. These factors have been compared with resilience, and there is evidence that they predict performance, motivation and life and job satisfaction (Bakker et al., 2008).

Albrecht (2010) and Macey et al. (2011) argue that people with specific personality profiles seem to be able to mobilise job resources better and highlight that personality may be important in work engagement. Mäkikangas et al. (2013) demonstrated that certain personality factors are consistently highly correlated with work engagement, and these were identified as emotional stability, extraversion and conscientiousness.

Bakker et al. (2014) suggest that individual differences influence whether or not work engagement is affected by the objective work situation. The authors found that those who are able to mobilise their job resources use these resources to facilitate work engagement (Bakker et al., 2014). Christian et al. (2011) add that certain individual differences contribute towards engagement. Conscientiousness, proactive personality, positive affect and the ability to control emotions and thoughts so that one can interact actively with the environment were all found to correlate positively with work engagement.

Bakker, Tims, and Derks (2012) found that employees who had a proactive personality increased their job resources and job challenges, which led to higher levels of engagement. People who had the ability to change their environment were able to adjust their work demands and mobilise their work resources, which facilitated their engagement.

Evidence thus shows that individual factors, both higher-order factors (e.g. emotional stability, conscientiousness, extraversion and proactive personality) and lower-order factors (e.g. optimism, self-efficacy and self-esteem) positively correlate with work engagement (Christian et al., 2011).

Outcomes of work engagement. Work engagement has been found to have several desirable organisational outcomes, examples of which are shown below.

Table 4

Selected studies on outcomes of work engagement

Author and year	Sample and sample size	Country	Aim	Method	Main findings
Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009)	42 employees of a fast food company	Netherlands	To investigate how daily fluctuations are related to employees' levels of personal resources	Questionnaire and diary booklet over 5 consecutive days	Day-level job resources had an effect on day-level job resources, which in turn predicted daily financial returns.
Andrew and Sofian (2012)	104 HR Officers	Malaysia	To test the influence of individual factors of work engagement on employee outcomes	Questionnaire	Employee engagement is a strong factor in organisational performance since it affects employee retention, loyalty, productivity with a link to customer satisfaction, organisational reputation and overall stakeholder value.
Bakker and Bal (2010)	54 Dutch teachers	Netherlands	To examine the intra-individual relationship between job resources, work engagement and job performance	Weekly questionnaire every Friday for 5 consecutive weeks	Weekly job resources were positively related to weekly engagement, which in turn was positively related to weekly job performance. Work engagement was also related to job resources in the subsequent weeks.
Upadyaya, Vartiainen, and Salmela-Aro (2016)	1 415 employees	Finland	To investigate cross-lagged associations between work engagement and burnout, and life satisfaction and depressive symptoms, their demands and resources and effects on occupational health outcomes	Two email questionnaires a year apart	Spill-over exists from work engagement to depressive symptoms (negatively) and life satisfaction (positively). Work engagement was also negatively associated with burnout.
Hakanen and Schaufeli (2012)	1 964 dentists	Finland	To investigate cross-lagged associations between burnout and work engagement on the one hand, and depressive symptoms and life satisfaction on the other hand	Three questionnaires at one year, three years and seven years	Work engagement had a negative effect on depressive symptoms and a positive effect on life satisfaction.

Gorgievski and Bakker (2010) report that engaged employees have an energetic and effective connection with work. Such employees work hard, have a feeling of significance, enthusiasm, pride, inspiration and challenge and become happily engrossed in work. For Gorgievski and Bakker (2010) work engagement is seen to be a higher, aspirational form of motivation due its positive outcomes. However, this aspirational, positive, popular view of engagement is being challenged by researchers such as Bakker, Hakanen, Demerouti, and Xanthopoulou (2007) and Crawford et al. (2010) who report that high motivation at work may result in exhaustion and health impairment in the presence of high work demands and work pressure.

The dark side of work engagement. Although work engagement is reported to correlate positively with employees' productivity and wellbeing and is, therefore, considered desirable, certain studies suggest that there may be a negative side to work engagement (Innanen, Tolvanen, & Salmela-Aro, 2014; Moeller et al., 2018; Salmela-Aro, Moeller, Schneider, Spicer, & Lavonen, 2016). These studies directly challenge the approach that work engagement is an antithesis to burnout. Examples of extremes representing the negative side of work engagement are workaholism and karoshi, which indicate that work engagement can be detrimental. (Moeller et al., 2018).

Research has found negative associations between engagement and burnout (Gorgievski & Bakker, 2010; Schaufeli et al., 2008). These studies suggest that burnout is low when engagement is high, but they also acknowledge that these two concepts are not necessarily mutually exclusive. Mäkikangas et al. (2012) investigated components of both work engagement and burnout and reported that dedication, a component of engagement, and exhaustion, a component of burnout, are opposites with a strong negative relationship. Mäkikangas et al. (2012) also found that vigour and exhaustion can occur together.

Schaufeli et al. (2008) assert that burnout and work engagement together with workaholism are different types of employee wellbeing that are related to each other. Burnout and engagement were said to act as opposites whereas workaholism was found

to share features of both. Workaholism and burnout were also found to be positively correlated. In addition, workaholism and work engagement were found to overlap since they both shared feelings of absorption. The difference was in the motivation for the absorption, which was compulsion for workaholism and enjoyment for work engagement.

Innanen et al. (2014) identified certain profiles related to engagement and workaholism and found that participants could have moderate levels of engagement despite having high levels of burnout. Other studies (Salmela-Aro et al., 2016; Tuominen-Soini & Salmela-Aro, 2014) also confirmed that work engagement and burnout can be experienced together by some individuals. These studies found that eventually, persons who were engaged but exhausted became disengaged, indicating the realisation that work engagement is not enough if other health-related constructs are not being monitored.

Moeller et al. (2018) state that high engagement is possibly a “double-edged sword” (p. 98) for some employees. Their study determined that work engagement was only associated with beneficial experiences and outcomes if the individual was not exhausted. When the employee was exhausted, work engagement demonstrated associations with mixed feelings and combinations of desired and undesired outcomes. The Moeller et al. (2018) study found that almost 20% of the highly engaged employees were exhausted. These engaged-exhausted workers reported high levels of both positive and negative emotions that co-occurred together with strong turnover intentions. Moeller et al. (2018) concluded that engagement and burnout differed among individuals and that engagement may not necessarily be the desirable form of motivation as believed by some since engagement could co-occur with burnout. Tuominen-Soini and Salmela-Aro (2014) reached a similar conclusion and stated that engaged employees who suffer from stress and burnout symptoms were at the beginning of the path to disengagement, again contradicting the notion of work engagement as an antithesis to burnout.

However, Moeller et al. (2018) could not determine why the same experiences in different employees led to different engagement-burnout profiles, and this warrants further investigation of the individual. One such avenue of investigation is how individuals’ appraisals of certain stressors shape their reactions to such stressors.

Research Hypotheses

To answer the research question of whether work overload is appraised as a challenge or a hindrance stressor and the relationship of this appraisal to work engagement and burnout as presented in Chapter 1, the following research hypotheses were devised and tested.

Hypothesis 1: Work overload has a positive indirect relationship with work engagement as mediated by challenge appraisal.

Hypothesis 2: Work overload has a negative indirect relationship with work engagement as mediated by hindrance appraisal.

Hypothesis 3: There is a negative relationship between work engagement and burnout.

Hypothesis 4: The relationship between working long hours and burnout is moderated by the duration of working long hours.

Hypothesis 5: Work overload has a positive indirect relationship with burnout as mediated by hindrance appraisal.

Hypothesis 6: Work overload has a negative indirect relationship with burnout as mediated by challenge appraisal.

Hypothesis 7: The relationship between work overload and work engagement is stronger than the relationship between work overload and burnout if work overload is appraised as a challenge stressor.

Figure 1 depicts a model of the role of appraisal in the relationship between work overload, work engagement and burnout.

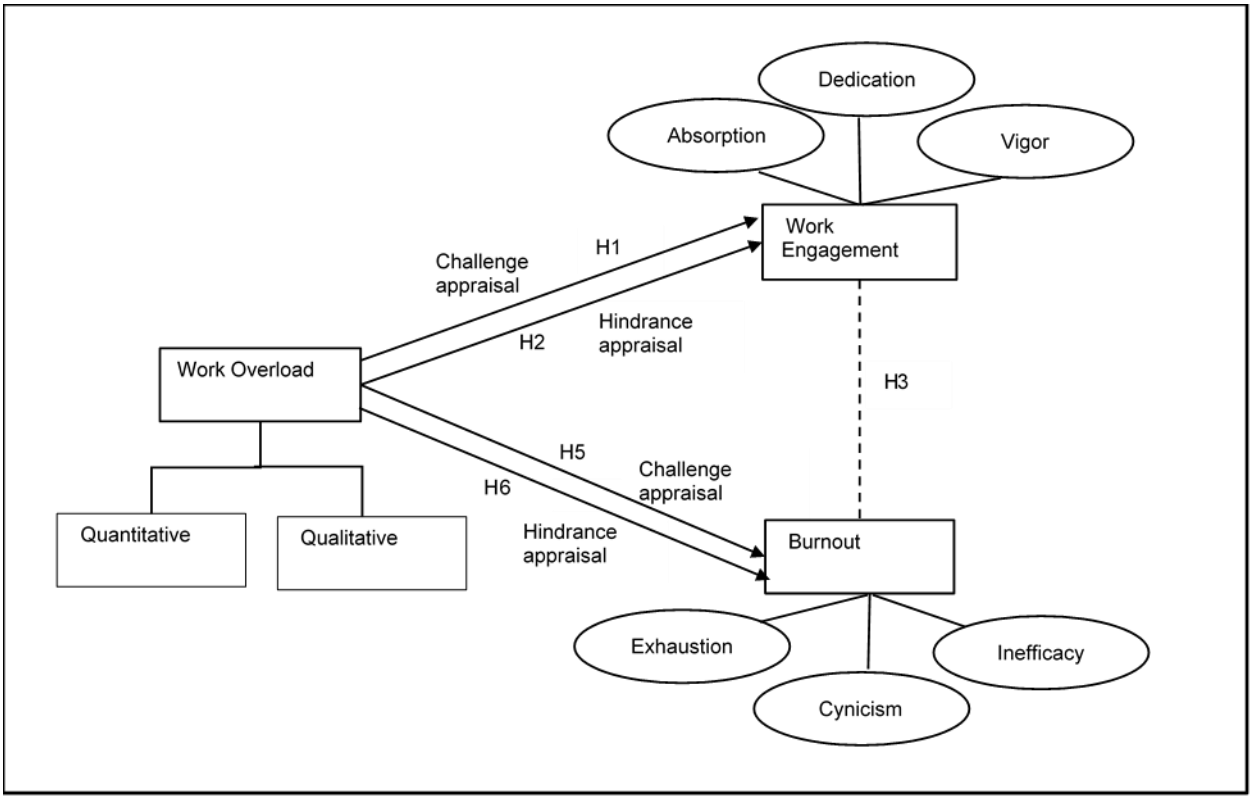

Figure 1. A proposed model of the role of appraisal in the relationship between work overload, work engagement and burnout

Conclusion

This chapter presented a review of the literature related to work overload, work engagement and burnout. The challenge-hindrance stressor theory was discussed as a framework for the investigation of the interaction between these variables. Based on the reviewed literature, a proposed model of hypothesised relationships was developed. The following chapter focuses on the research method used to conduct the research.

Chapter 3: Method

Introduction

The aim of this study was to investigate the relationship between work overload and work engagement and burnout and how this relationship is influenced by the appraisal of work overload as either a challenge or a hindrance stressor. Chapter 3 discusses the research design and the data collection method. The chapter also introduces the data analyses used to answer the research question regarding whether or not work overload has a positive relationship with work engagement if appraised as a challenge stressor and a positive relationship with burnout if appraised as a hindrance stressor. The chapter provides a description of the tools, the sample, the procedure and the ethical considerations followed to answer the research question.

Research Design

This study is quantitative in nature, aimed to describe a relationship between variables within a population (Barbie, 2010). The study uses an explanatory design, which is a design that goes beyond describing the characteristics of a situation and explains and analyses a situation in the form of relationships, helping to gain fresh insights so that one can build, extend, elaborate or test a theory (Collis & Hussey, 2014; Rahi, 2017).

A cross-sectional self-report survey was used to collect data. A cross-sectional survey was considered appropriate because it is an effective way to study relationships among variables (Cozby, 2009). Furthermore, Collis and Hussey (2014) assert that cross-sectional studies are conducted when time constraints and limited resources are an issue because in cross-sectional studies, data are collected once over a short period before being analysed, as was the case in this study.

Collis and Hussey (2014) state that cross-sectional surveys have challenges, for instance, selecting a sample that is large enough to be representative. There is also the problem of not being able to isolate the phenomena being studied from other factors that could be influencing the relationships under investigation. In addition, cross-sectional

studies do not explain causal relationships. Cross-sectional studies indicate that correlations exist but do not provide the reasons for their existence (Collis & Hussey, 2014). Despite these challenges, it was deemed that a cross-sectional survey was the most appropriate because the aim of the study was to investigate relationships without necessarily determining the reasons for the relationships due to the time and resources that were available for the study.

Sample

This study employed purposive, convenience and snowball sampling, which are types of non-probability sampling (Burns & Burns, 2008). Purposive sampling, also known as judgment sampling, is used when the researcher selects a group of people who knows about the problem (Rahi, 2017). Purposive sampling was appropriate because only a certain group of people would be able to answer the research questions, those who were in full-time employment. Convenience sampling capitalises on individuals who are available and willing to participate in the study. Collis and Hussey (2014) state that convenience sampling is used when the researcher has limited influence on the composition of the sample. Snowball sampling, the second sampling method, involves the respondents in a study being used to recruit additional respondents. Collis and Hussey (2014) state that snowball sampling is used in studies where it is necessary for people to have a particular experience of the phenomenon being studied.

In this study, it was important that the researcher obtained a large sample within a limited time and that the respondents met certain criteria. Hence, purposive, convenience and snowball sampling were used. The respondents were selected because they met the research criteria (working adults formally employed in South African organisations) and were requested to forward the questionnaire link to other individuals who met the research criteria. According to Cozby (2009), most psychological research is focused on studying relationships between variables and not causality, making the requirement of a non-biased sample less important and making convenience and snowball sampling appropriate, as was the case in this study.

Due to the snowball sampling method, the researcher was not able to determine the number of people who received the electronic link to the questionnaire and, therefore, was unable to determine a response rate. In total, 153 responses were initially received. However, nine responses had to be removed due to substantial missing data and thus, the analyses were conducted with 144 responses. The demographics are presented in Table 5.

Table 5

Demographic characteristics of respondents

Variable	Level	Number of respondents	% of respondents
Industry	Extractive Industries	2	1%
	Transformative Industries	9	6%
	Distributive Services	4	3%
	Producer services	96	67%
	Personal Services	8	6%
	Social Services	23	16%
	Unanswered	2	1%
Job Level	Top Management	19	13%
	Senior Management	27	19%
	Professionally qualified and experienced specialists and mid-management	52	36%
	Skilled technical and academically qualified workers, junior management, supervisors, foremen and superintendents	34	24%
	Semi-skilled and discretionary decision making	9	6%
	Unskilled and defined decision making	3	2%
Age	18 - 24 years	3	2%
	25 - 34 years	32	22%
	35 - 44 years	69	48%
	45 - 54 years	28	19%
	55 - 64 years	7	5%
	65 years and older	3	2%
Gender	Male	45	31%
	Female	98	68%
	Unanswered	1	1%
Race	Black African	56	39%
	Asian	1	1%
	Coloured	19	13%
	Indian	10	7%
	White/ Caucasian	55	38%
	Prefer not to answer	2	1%
	Unanswered	1	1%
Tenure	0 - 3 months	7	5%
	3 months - 1 year	9	6%
	1 - 3 years	33	23%
	3 - 5 years	20	14%
	5 - 7 years	18	13%
	7 - 10 years	25	17%
	Longer than 10 years	32	22%

Measures

A composite questionnaire was developed using validated scales to measure the research variables and constructs. Instruments with a Cronbach's alpha value between α=.70 and α=.90 (Tavakol & Dennick, 2011) were targeted and used. The initial part of the questionnaire requested demographic information, and this was followed by each of the scales. The questionnaire comprised 41 items, including demographic information. A detailed description of each of the scales is provided below.

Work overload. Work overload was measured using the five-item Quantitative Workload Inventory (QWI) (Spector & Jex, 1998), which assesses the perceived amount of work in terms of pace and volume. The scale consists of five items aiming to measure quantitative workload. Each item is a statement regarding amount of work, and respondents indicate how often each of the five items occurs, using a rating of 1 (less than once a month or never) to 5 (several times a day). Sample items included 'How often does your job require you to work very fast?' and 'How often is there a great deal to be done?' Findings from meta-analytic studies have reported that the QWI yields a coefficient α of .82 (Spector & Jex, 1998).

The QWI contains items that focus on quantitative workload, which was one of the focus areas of the research. The other focus area from a work overload perspective was qualitative workload. The definition of qualitative work overload by Jex (1998) states that qualitative work overload addresses the difficulty of the work. Thus, to measure qualitative work overload, the question, 'How often do you have work which you feel you do not have the skills to do well?' was included at the end of the QWI.

Kuschel (2015) and Spector and Jex (1998) state that hours of work have been used as a proxy for work overload because the number of hours worked have been found to have a close relationship with work overload. A question was thus included at the end of the demographic section to measure the number of hours worked per week.

One of the research questions was to investigate whether or not work overload for a prolonged period could predict burnout. Thus, another question was included that enquired the length of time that the respondent had been working the said number of hours per week.

Challenge and hindrance stressor appraisal. The challenge and hindrance stressor appraisals were measured using the challenge and hindrance stressor appraisal scale of Searle and Auton (2015), which includes eight items, four items to measure challenge appraisal and four items to measure hindrance appraisal. The questions were answered on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items were 'The workload I currently experience will help me to learn a lot' (challenge appraisal) or 'The workload I currently experience will limit how well I can do' (hindrance appraisal). Reported Cronbach's α range from .80 to .97 (Searle & Auton, 2015). High scores on items 1 to 4 indicated that the workload was experienced as a high challenge stressor and high scores on items 5 to 8 indicated that the workload was experienced as a high hindrance stressor.

Work engagement. Work engagement was measured using the Utrecht Work Engagement Scale-9 (Schaufeli, Bakker, & Salanova, 2006), which measures work engagement described as a positive work-related state of fulfilment characterised by vigour, absorption and dedication. Items are scored on a 7-point frequency rating scale, ranging from 0 (never) to 6 (always/every day). Sample questions were 'At my work, I feel bursting with energy' and 'My job inspires me'. Previously reported Cronbach's α have varied between .85 and .92, with a median of .92 (De Bruin & Henn, 2013). High scores indicate high engagement.

Burnout. Burnout was measured using the Bergen Burnout Inventory-9 (Salmela-Aro, Rantanen et al., 2011), which evaluates the three dimensions of burnout, exhaustion,

cynicism and inadequacy. The survey comprised nine items that were scored on a 6-point scale, ranging from 1 (completely disagree) to 6 (completely agree). Sample items were 'I am snowed under with work' (exhaustion), 'I feel that I have gradually less to give' (cynicism) and 'I frequently question the value of my work' (inadequacy). The Cronbach's α for this scale have been reported to be between .71 and .83 (Feldt, Rantanen, Hyvönen, Mäkikangas, Huhtala, Pihlajasaari et al., 2014). High scores indicated high levels of burnout.

Demographic section. The purpose of the demographic section in the questionnaire was to collect information to determine the characteristics of the sample. Information collected included age, race, gender, industry, job level and tenure at current employer.

Procedure

An online, self-reported questionnaire containing 41 questions (including demographics) was created using Qualtrics, an online tool that captures responses.

Before data were collected, ethical clearance was requested and received from the Ethics Research Committee of the Commerce Faculty at the University of Cape Town. The introduction page of the questionnaire contained a cover letter that explained the purpose of the study, how the results would be used and the concept of informed consent. The letter also stated that the results would be treated anonymously and that confidentiality was ensured. Respondents were informed that participation was voluntary and that they could withdraw from the study at any point. It was also explained to the respondents that by clicking in the box on the cover page, they were agreeing to participate voluntarily with a full understanding of what the study entailed.

The questionnaire was sent via an electronic link in an email. The email was sent to the target population, which comprised all the people in the researcher's personal outlook address book who met the criteria. The instruction was given that those interested

in participating should click on the link. Respondents were also requested to forward the questionnaire to any of their contacts who met the criteria. After two weeks, only 44 responses were received, and this response rate was deemed poor. A reminder email was sent to those who had received the original email, with a note to thank the people who had already participated. After an additional two weeks, 79 responses were received, which was still deemed unsatisfactory. Hence, a mobile version of the questionnaire was sent to all the contacts in the researcher's mobile phonebook who met the criteria using the application software called WhatsApp, an internet texting system. Four weeks after sending the link via WhatsApp, 153 responses had been received. The survey was closed and the data exported into IBM SPSS Version 25, a research software for data analysis.

Data Analysis

To assess the hypotheses outlined in this study, statistical analyses were conducted on the data received. All the statistical analyses were conducted on IBM SPSS Version 25 software.

Descriptive statistics – Information on various descriptive statistics was compiled in order to understand the data better. This information included the number of respondents, the means of the various variables, the standard deviations of the variables and the minimum and maximum scores for each of the variables.

Correlation analyses – Pearson product-moment correlation was performed to calculate the correlation among the variables of interest. Correlation analysis was also used to assess Hypothesis 3.

Factor analysis – Principal component analysis (PCA) was conducted for each scale to confirm that each scale measured what it purported to measure.

Reliability analysis – The reliability of all the scales was evaluated to assess if the scales were internally consistent. Scales with a Cronbach's alpha value of .70 were deemed internally consistent (Nunnally, 1978).

Mediation regression analyses – Mediation analyses were conducted to test the hypotheses that required an assessment of indirect relationships that included a mediator. These hypotheses were hypotheses 1, 2, 5 and 6.

Moderation regression analysis – A moderation regression analysis was conducted for Hypothesis 4 to assess if there was a moderation effect on the two variables of interest.

Conclusion

This chapter outlined the research methodology with a focus on the research design, the sample and sampling procedure, the measurement instruments that were used and the data collection procedure. An overview of the different statistical analyses that were conducted was given. The following chapter describes the results of the statistical analyses in detail.

Chapter 4: Results

Introduction

The findings of the study which involved a survey of adults who are permanently employed full time in South African organisations are reported in this chapter. The reliability, validity and correlational analyses conducted and the results from the hypotheses testing are presented.

The findings of the study are demonstrated in five sub-sections. The section regarding data cleaning is presented first and is followed by a presentation of the validity and reliability analyses. The following two sections present the descriptive data and the correlational analyses for the variables. The final section discusses the hypotheses testing.

Data Cleaning

The data were exported into SPPS Version 25. The first step before the data analysis commenced was to ensure that all the data sets were complete and that there were no missing data. Field (2012) recommends that any data set for which there is more than one-third of the data missing for any scale should be discarded. Of the 153 responses received, two cases were missing 40% data in one scale, three cases had 35% missing data in one scale and four cases had 40% missing data in at least one scale. Thus, nine cases were discarded, resulting in 144 cases being suitable for analysis.

Validity Analysis

Principal component analysis was conducted on each scale to confirm that each measured what it purported to measure. Field (2018) states that certain assumptions need to be met in order to conduct a PCA. For example, the Kaiser-Meyer-Olkin (KMO) (Kaiser, 1974) measure of sphericity should have a value of .50. The KMO values for all the scales were above this value and indicated that this assumption had been met.

Another assumption is that the Bartlett's Test of Sphericity, which tests whether or not the items in the scales correlate well with each other, should yield significant results. This was the case for all the scales. In addition, direct oblimin rotation was performed for purposes of refining and interpreting the factor structures. Direct oblimin was considered appropriate because in social science, it is assumed that components are related (Costello & Osborne, 2005).

Table 6

Kaiser-Meyer-Olkin and Bartlett's Test of Sphericity results

Scale	KMO	Bartlett's Test	df
Workload	.79	381.73**	15
Challenge and Hindrance Appraisal	.88	739.82**	28
Work Engagement	.90	1033.11**	36
Burnout	.87	726.94**	36

*Note: ** p <.001.*

In order to determine the number of factors to be retained, a scree plot can be used or components with eigenvalues greater than 1 can be retained (Kaiser, 1970 as cited in Field, 2017). However, certain assumptions must be met in order to use the eigenvalue method to retain factors; there should be less than 30 variables, and the communalities after extraction should all be greater than .70 (Kaiser, 1974). Although the variables were less than 30 in this study, not all communalities were greater than .70, which implied that this method of determining the number of factors could not be used. Thus, the scree plot method was employed (Appendix D) to determine the number of

factors (Cattell, 1966). When using the scree plot, one identifies the point of inflexion and takes the valid factors as those to the left of the point of inflexion.

Work Overload. The point of inflexion for workload was at 3, indicating that workload had two factors as expected. The total variance explained by these two factors was 74.35%, with 56.45% variance explained by Factor 1 alone. Item 3 was removed because it presented with cross loadings on both factors 1 and 2. An additional PCA was conducted that revealed two clean factors, explaining 75.85% of the total variance, with Factor 1 alone explaining 54.41% of the variance. The two factors on workload were consistent with the literature on quantitative and qualitative workload. Item 5 (How often do you have to do more work than you can do well) was intended to load as quantitative workload, however, it loaded as qualitative workload. The explanation for this could be that the South African sample interpreted the word ‘well’ as qualitative.

Challenge and hindrance stressors. Before PCA was performed, the Challenge and Hindrance Stressor Scale was reverse coded for four items (item numbers 5 to 8). These items represented hindrance stressors, which are opposite to challenge stressors. Reverse coding involved a process in which the responses for items 5 to 8 were changed. A rating of 1, which represented strongly disagree in the questionnaire, was changed in the data to represent strongly agree. In addition, the rating 2 was changed to represent agree instead of disagree, 3 was unchanged, 4 was changed to represent disagree instead of agree and 5 was changed to represent strongly disagree instead of strongly agree.

The point of inflexion for the challenge and hindrance stressor appraisal scale was 3, indicating this scale had two factors as expected – challenge and hindrance stressors. The total variance explained by the two factors was 76.26%, with 58.29% explained by Factor 1.

Work engagement. The point of inflexion for work engagement was 3, indicating two factors instead of the three that are reflected in the literature. The total variance explained by these two factors was 77.78%, with Factor 1 explaining 65.77% of the variance. Items 6 and 7 were cross loading on both factors, and these were removed one at a time. Two PCAs were re-run until none of the extracted factors showed cross loadings. The final PCA revealed two factors accounting for 81.65% of the total variance, with 66.73% accounted for by the first factor alone.

For work engagement, vigour and dedication loaded on one factor and absorption loaded on another. This was consistent with De Bruin and Henn (2013) who were also unable to extract a separate dedication factor for their research on South African participants.

Burnout. The burnout scale had its point of inflexion at 3, which indicated two factors accounting for a total variance of 69.64%, with the first factor accounting for 55.33% of the variance. There was a clear factor representing exhaustion, but cynicism and inadequacy both loaded on the same factor. Feldt et al. (2014) argued that there were high inter-correlations between cynicism and inadequacy factors on the Bergen Burnout Inventory (BBI), which was used in the current study. This is consistent with Laschinger and Fida (2014) who argued that recent work has focused on burnout as consisting of two factors. These burnout studies demonstrated consistent results for emotional exhaustion and cynicism but indicated no consistency for inefficacy (Laschinger & Fida, 2014).

Reliability Analysis

Reliability was evaluated for all the scales to assess that the scales were internally consistent. Any scale with a Cronbach's alpha value of .70 was deemed to be internally consistent (Nunnally, 1978). According to Cortina (1993), items that have item inter-correlation of .30 and above are acceptable in a scale and should be retained in

reliability analysis. The rating of .30 and above for each item suggested that the items correlated well with the overall scale.

Work overload. Work overload was measured using the amended QWI (Spector & Jex, 1998), which had six items. Item 3 had been removed during the PCA. The five-item QWI was found to have an acceptable reliability: $\alpha = .79$ with item-total correlations of $.41 < r < .67$ ($n = 144$).

Challenge and hindrance appraisal. Challenge and hindrance stressor appraisals were measured using the challenge and hindrance stressor appraisal scale of Searle and Auton (2015), which has eight items. This scale had high reliability: $\alpha = .90$ with item-total correlations of $.61 < r < .78$ ($n = 144$).

Work engagement. Work engagement was measured using the Utrecht Work Engagement Scale-9 (Schaufeli et al., 2006), which originally contained nine items. Items 6 and 7 were removed during PCA, and the 7-item scale was found to have high reliability: $\alpha = .91$ with item-total correlations of $.49 < r < .85$ ($n = 144$).

Burnout. Burnout was measured using the Bergen Burnout Inventory-9 (Salmela-Aro, Rantanen et al., 2011), which has nine items. The scale was found to have high reliability: $\alpha = .89$ with item-total correlations of $.39 < r < .80$ ($n = 144$).

Descriptive Statistics

In order to understand the data better, information on various descriptive statistics was compiled and included the number of participants, the means of the various variables,

the standard deviations of the variables, the minimum and maximum scores and the correlations among the predictor and outcome variables.

Two-thirds of the respondents worked in the producer services industry, which includes financial and banking services and consulting. Professional and skilled technical levels were indicated in 60% of the respondents. Age was normally distributed, with 48% of the respondents aged between 35 years and 44 years. Females comprised 68% of the respondent group, and there was a bimodal distribution for the South African race groups, with 38% white respondents and 39% black respondents. Tenure was also bimodal, with 23% of the respondents having between one year and three years of service and 22% with more than 10 years of service with their current employer. The largest percentage of respondents (45%) worked over 45 hours per week, followed by 40% of the respondents who worked between 40 hours and 45 hours per week. One-half of respondents had worked these hours for more than three years. Descriptive statistics relating to the variables of the analyses are shown in Table 7.

Table 7

Summary of descriptive data for the variables of the analyses

Scale	N	Minimum	Maximum	Mean	Std. Deviation
Hours of work per week	144	1[1]	11[2]	3.81[3]	1.73
Length of time working these hours	144	1[4]	8[5]	6.47[6]	2.03
Workload	144	1.20	5.00	3.2278	0.87
Challenge appraisal	144	1.25	5.00	3.7182	0.87
Hindrance appraisal	144	1.00	5.00	2.5087	0.92
Work engagement	144	1.00	7.00	5.0587	1.24
Burnout	142	1.00	5.56	2.8751	1.09

Notes: 1. <35 hours per week; 2. >80 hours per week; 3. 40–45 hours per week; 4. <1 month; 5. >36 months; 6. 18−24 months

Correlation Analysis

Pearson product-moment correlation was performed to calculate the correlations among the variables of interest. Pearson correlation requires that a certain number of assumptions are met, the most important of these being linearity and normality. The variables of study did not meet the assumption of normality and, therefore, bootstrapping was performed on the data (Field, 2017). Wright, London and Field (2011) describe bootstrap estimation as a procedure that is computer intensive since the computer repeatedly draws large numbers of smaller samples from the observed data. In essence, bootstrapping ensures that the data meet the assumptions of normality and linearity.

The results of the correlation analyses are presented in Table 8. The interpretation of Evans (1996) was used, which states that correlations of .00–.19 are very weak, .20–.39 are weak, .40–.59 are moderate, .60–.79 are strong and .80–1.0 are very strong.

The results of the current study indicate a strong correlation between hindrance appraisal and burnout, implying that if a stressor is appraised as a hindrance, there is the likelihood of experiencing burnout. There was a moderate negative correlation between burnout and work engagement, which indicates that as burnout increases, work engagement decreases. Another moderate negative correlation was between hindrance appraisal and challenge appraisal, implying that if a stressor is appraised as a hindrance, it is less likely to be appraised as a challenge as well. A moderate positive correlation was found between work engagement and challenge appraisal, indicating that if a stressor is appraised as a challenge, work engagement would also be high.

Table 8

Pearson correlation matrix

		1	2	3	4	5	6	7
1.	Hours of work per week	1	.034	.310**	.175*	-.060	.222**	.209*
2.	Length of time working these hours		1	.237**	-.125	-.084	.236**	.160
3.	Workload			1	-.019	-.072	.356**	.379**
4.	Work engagement				1	.500**	-.352**	-.559**
5.	Challenge appraisal					1	-.521**	-.429**
6.	Hindrance appraisal						1	.613**
7.	Burnout							1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Analyses of Hypotheses

In order to test the hypotheses in the study, the PROCESS macro by Hayes (2013) was used, specifically models 4 and 1. Hypotheses 1, 2, 5 and 6 were tested using model 4 of the Hayes (2013) PROCESS macro and Hypothesis 4 was tested using model 1. Hypothesis 3 was tested through the conduction of a correlation analysis, and Hypothesis 7 required comparison of the results of hypotheses 1 and 6.

Hypothesis 1: Work overload has a positive indirect relationship with work engagement as mediated by challenge appraisal.

Mediation analysis was conducted to investigate this hypothesis. The assumptions for a mediation analysis are that there needs to be a statistically significant relationship between the predictor and the mediator and between the mediator and the outcome. In addition, a relationship between the predictor and the outcome must exist, which is changed by the presence of the mediator (Hayes, 2013).

These assumptions were translated in this hypothesis to mean that there should be a statistically significant relationship between work overload and challenge appraisal and between challenge appraisal and work engagement. In addition, there is the requirement for a relationship between work overload and work engagement, which should be changed by the presence of a challenge appraisal. Results indicated that there was no statistically significant relationship between work overload and challenge appraisal (B = -.071, SE = .083, p = .3953). Since this first assumption for mediation was not met, this hypothesis was not supported. Further evidence of the lack of support for Hypothesis 1 was that the indirect effect between work overload and work engagement through challenge appraisal had upper and lower confidence intervals that included zero, indicating no mediation effect. These results indicated that for this sample, work overload was not assessed as a challenge appraisal, which nullified the necessity of identifying whether or not work overload had a positive relationship with work engagement.

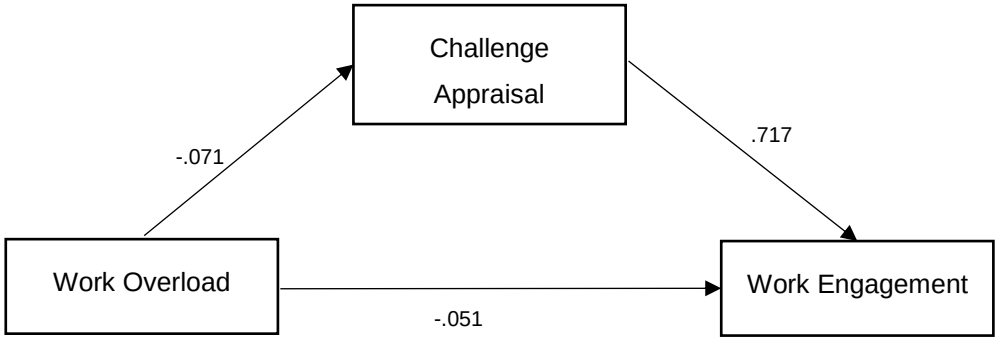

Figure 2. Mediation regression analysis of challenge appraisal on workload and work engagement

Hypothesis 2: Work overload has a negative indirect relationship with work engagement as mediated by hindrance appraisal.

To investigate Hypothesis 2, mediation analysis was used. The assumptions for mediation in this hypothesis required that there should be a statistically significant

relationship between work overload and hindrance appraisal and between hindrance appraisal and work engagement (Hayes, 2013). In addition, there is the requirement for a relationship between work overload and work engagement, which is changed by the presence of hindrance appraisal. These assumptions were satisfied, and the results of the mediation analysis indicated that work overload was a significant predictor of hindrance appraisal (B = .377, SE = .083, p <.001) and that hindrance appraisal was a significant predictor of work engagement (B = -.532, SE = .113 p <.001). The indirect effect was tested using PROCESS macro Version 3 (Hayes, 2013) with bootstrap estimation involving 5 000 samples. The results indicated that the indirect effect between work overload and work engagement was mediated by hindrance appraisal (B = -.201, SE = .069, 95% CI = -.286, -.059). These results demonstrate support for Hypothesis 2, indicating that work overload was indeed appraised as a hindrance stressor and that when appraised this way, work overload has a significantly negative relationship with work engagement.

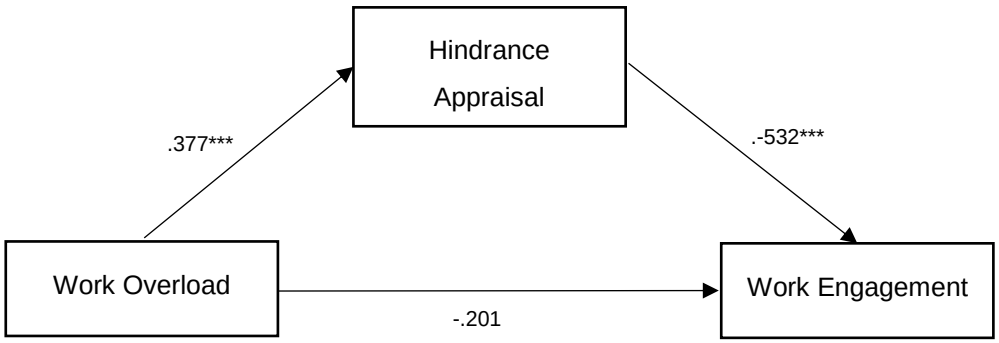

Figure 3. Mediation regression analysis of hindrance appraisal on workload and work engagement

*** p <.001

Hypothesis 3: There is a negative relationship between work engagement and burnout.

Since this hypothesis was investigating the relationship between two variables, work overload and work engagement, Pearson product-moment correlation was used to test this hypothesis. The results of the correlation analysis showed a statistically

significant, moderate negative correlation between work engagement and burnout (r = -.559, n = 142, p <.001), indicating support for Hypothesis 3. These results show that as work engagement increases, burnout decreases and vice versa. The strength of the relationship, which was moderate, implies that instead of work engagement and burnout being complete opposites, they are two constructs that happen to be negatively correlated. This supports the notion held by Schaufeli et al. (2002) that work engagement and burnout are two negatively correlated constructs.

Hypothesis 4: The relationship between working long hours and burnout is moderated by the duration of working long hours.

The duration of working long hours was examined as a moderator of the relationship between weekly hours of work and burnout using the Hayes (2013) PROCESS macro Version 3 with bootstrap estimation involving 5 000 samples. The results showed no moderation effect (B = .025, SE = .034, p = .4575). In addition, the lower and upper confidence intervals of the interaction included a zero, further indicating absence of a moderation effect. Hypothesis 4 was, therefore, not supported. This hypothesis intended to show that people who have been working long hours for a long time have a higher likelihood of burnout, but this was not demonstrated.

Hypothesis 5: Work overload has a positive indirect relationship with burnout as mediated by hindrance appraisal.

Mediation analysis was conducted to investigate Hypothesis 5. The mediation assumptions for this hypothesis required that there should be a statistically significant relationship between work overload and hindrance appraisal and between hindrance appraisal and burnout. In addition, there was the requirement for a relationship between work overload and burnout that is changed by the presence of hindrance appraisal. These assumptions were met, and the mediation analysis results indicated that work overload was a significant predictor of hindrance appraisal (B = .368, SE = .084, p <.001) and that hindrance appraisal was a significant predictor of burnout (B = .645, SE = .082, p <.001). The indirect effect was tested using Hayes (2013) PROCESS macro Version 3 with bootstrap estimation involving 5 000 samples. The results indicated that the indirect effect

between work overload and burnout was mediated by hindrance appraisal (B = -.237, SE = .067, 95% CI = .119, .382), thus demonstrating support for Hypothesis 5. This indicates that when work overload is appraised as a hindrance stressor, it has a positive relationship with burnout. In other words, when employees appraise work overload as a hindrance stressor, they are likely to burn out.

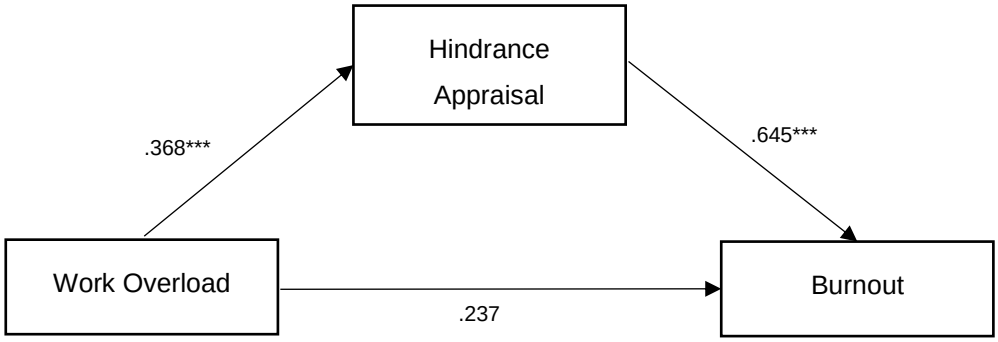

Figure 4. Mediation regression analysis of hindrance appraisal on workload and burnout

*** p <.001

Hypothesis 6: Work overload has a negative indirect relationship with burnout as mediated by challenge appraisal.

This hypothesis was tested using a mediation analysis. Mediation assumptions for this hypothesis required that there should be a statistically significant relationship between work overload and challenge appraisal and between challenge appraisal and burnout. In addition, there was the requirement for a relationship between work overload and burnout that was changed by the presence of challenge appraisal. Results indicated no statistically significant relationship between work overload and challenge appraisal (B = -.054, SE = .084, p = .522), indicating lack of mediation and no support for this hypothesis. In addition, the indirect effect between work overload and burnout through

challenge appraisal had upper and lower confidence intervals that included zero, which was further evidence of the lack of support for Hypothesis 6. This implies that work overload is not appraised as a challenge stressor and, therefore, its relationship with burnout through appraisal is immaterial.

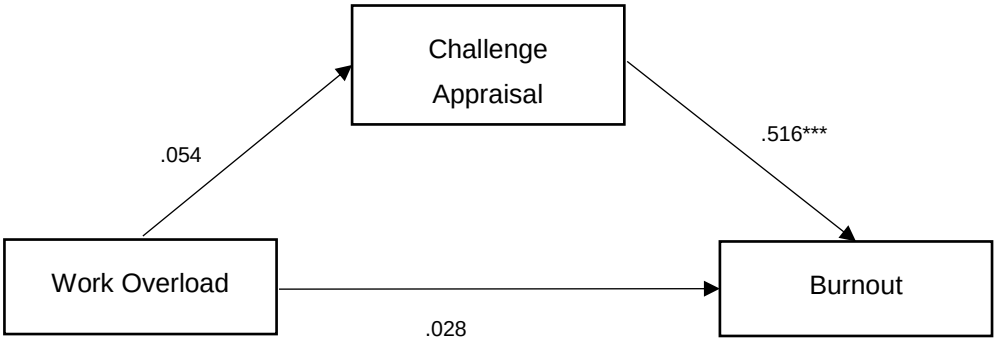

Figure 5. Mediation regression analysis of hindrance appraisal on workload and burnout

*** p <.001

Hypothesis 7: The relationship between work overload and work engagement is stronger than the relationship between work overload and burnout if work overload is appraised as a challenge stressor.

For this hypothesis to be tested, it was necessary to compare the results of Hypothesis 1 and Hypothesis 6 and to compare the strength of the beta coefficients. This was performed because Hypothesis 1 tested the relationship between work overload and work engagement as mediated by challenge appraisal; and Hypothesis 6 tested the relationship between work overload and burnout as mediated by challenge appraisal. The indirect effects that were the mediated effects were compared, and the results showed that the effect size for Hypothesis 1 (B = -.051, SE = .061) was larger than the effect size for Hypothesis 6 (B = .028, SE = .044), ignoring the negative sign that indicates the direction rather than the strength of the effect size. This gave support for Hypothesis 7.

However, the results were not statistically significant because both Hypothesis 1 and Hypothesis 6 were found to be not statistically significant.

A summary of the hypotheses that were tested and the results that were obtained are demonstrated in Table 9.

Table 9

Summary of hypothesis testing

Hypotheses	**Results**
1. Work overload has a positive indirect relationship with work engagement as mediated by challenge appraisal.	Not supported
2. Work overload has a negative indirect relationship with work engagement as mediated by hindrance appraisal.	Supported
3. There is a negative relationship between work engagement and burnout.	Supported
4. The relationship between working long hours and burnout is moderated by the duration of working long hours.	Not supported
5. Work overload has a positive indirect relationship with burnout as mediated by hindrance appraisal.	Supported
6. Work overload has a negative indirect relationship with burnout as mediated by challenge appraisal.	Not supported
7. The relationship between work overload and work engagement is stronger than the relationship between work overload and burnout if work overload is appraised as a challenge stressor.	Supported but not significant

Conclusion

This chapter reported and interpreted the research results that were obtained in the study. The following chapter presents the significance of these results in detail and compares the findings with relevant literature. The limitations of this study are discussed and recommendations for future studies are made.

Chapter 5: Discussion

Introduction

The objective of the current study was to investigate the role of individual appraisal in the relationship between work overload and work engagement and burnout. Chapter 5 presents the findings of the study and compares them with the findings of similar studies in different contexts. The chapter initially introduces the findings on the measurement validity in the South African context. This is followed by a discussion of whether or not work overload was perceived as a challenge or hindrance stressor in the current study. Thereafter, the role of appraisal in the relationship between work overload and work engagement and burnout is investigated, and a discussion regarding the relationship between work engagement and burnout follows. Theoretical and practical contributions are discussed, and the chapter concludes with a section addressing the limitations of the study and recommendations for future research.

Purpose of the Study

The purpose of this research was to conduct a quantitative study in South African organisations to gain an understanding of the role of individual appraisal of work overload and its relationship with work engagement and burnout. The study used the challenge-hindrance appraisal framework to examine this relationship. The study also investigated whether or not work engagement and burnout are complete opposites. If they are considered complete opposites, the implication is that the presence of one would exclude the other. If they are considered separate and negatively correlated constructs, then the implication is that it is unlikely, but not impossible, that both could be found in the same individual.

The key findings of the study were as follows:

- Both work engagement and burnout were found to have two factors, not three, as reported in previous studies.

- Work overload and challenge appraisal were not found to have a significant relationship, whereas work overload was found to have a significant and positive relationship with hindrance appraisal.
- Work engagement was positively correlated with challenge appraisal, whereas burnout was positively correlated with hindrance appraisal.
- Hindrance appraisal was found to be significant in mediating the positive relationship between work overload and burnout and the negative relationship between work overload and work engagement.
- Challenge appraisal did not have a significant mediating role in the relationship between work overload and work engagement or work overload and burnout.
- The negative relationship between work engagement and burnout was confirmed. However, this was not a perfect negative correlation, implying that work engagement and burnout are negatively correlated but not opposites.

These findings are presented in detail below.

Measurement Validity in the South African Context

Factor analysis was conducted to investigate if the constructs under investigation had factor structures that were consistent with the factors cited in literature. Work overload was found to encompass two factors as hypothesised by French et al. (1982). Although two factors were found, one of the items that was supposed to measure quantitative workload in the QWI (Spector & Jex, 1998) was found to load on the second factor, which measured qualitative workload, implying slight variation in the applicability of the QWI to this sample.

Challenge and hindrance stressors were found to be separate factors, which is in line with the challenge-hindrance stressor theory of Cavanaugh et al. (2000). The current study confirmed the universality of the challenge and hindrance stressor appraisal scale (Searle & Auton, 2015).

Work engagement was found to incorporate only two factors, not three factors as reported in literature (Schaufeli et al., 2006). For this study, vigour and dedication loaded on one factor and absorption loaded on another. This was consistent with De Bruin and Henn (2013) who were also unable to extract a separate dedication factor for their research on South African participants.

Burnout also loaded on two factors, not three factors as reflected in the literature (Feldt et al., 2014; Salmela-Aro, Rantanen et al., 2011). There was a clear factor representing exhaustion, but cynicism and inadequacy loaded on the same factor. Feldt et al. (2014) argued that there were high inter-correlations between cynicism and inadequacy factors on the BBI, indicating that these dimensions did not have much variance on their own. Although the current study used the BBI, a less popular instrument than the Maslach Burnout Inventory (MBI), no South African studies were found that confirmed the two- or the three-factor structure of the BBI. The three-factor structure of the MBI has, however, been confirmed in a South African setting (Storm & Rothmann, 2003).

The results of the current study regarding the differentiation of concepts that make up work engagement and burnout indicate some differences between the South African sample and samples from elsewhere in the world. These differences may be due to the fact that the tools used in the study were constructed using a version of English that is not South African English. In addition, most South Africans are not native English speakers, which could have affected the respondents' interpretation of certain items. Goliath-Yarde and Roodt (2011) found that in addition to language, cultural aspects and level of education may be responsible for the differences found in South African samples.

Work Overload: Challenge or Hindrance

For the current study, work overload was not found to have a significant relationship with challenge appraisal. However, work overload was found to have a positive significant relationship with hindrance appraisal. This indicated that work overload was appraised more as a hindrance stressor than as a challenge stressor. Thus,

the higher the work overload, the higher was the likelihood that one would appraise this work overload as a hindrance stressor and not a challenge stressor. Challenge stressors are associated with positive employee and organisational outcomes, whereas hindrance stressors are associated with negative employee and organisational outcomes. Appraising work overload as a hindrance stressor implies that no positive benefits may be gained by the organisation or the individual when employees have high levels of work overload. Cavanaugh et al. (2000) indicated that work overload was appraised as a challenge, and other studies have concurred (Podsakoff et al., 2007). The current study was not able to confirm this finding. Instead, results similar to other studies (Bakker & Sanz-Vergel, 2013; Min et al., 2015) were obtained, casting doubt on the classification of work overload as a challenge stressor alone and indicating that work overload can be evaluated as both a challenge and a hindrance stressor.

The relationship between hours of work and challenge appraisal was also not significant, but there was a significant positive relationship between hours of work and hindrance appraisal. This relationship indicates that the greater the number of hours worked by an individual, the higher is the likelihood that the work overload experienced will be appraised as a hindrance and that the negative outcomes of hindrance stressors will be demonstrated.

The Role of Appraisal in the Relationship between Work Overload and Work Engagement

The results of the current study indicate that challenge appraisal and hindrance appraisal have different functions in the relationship between work overload and work engagement. This study did not find support for the positive relationship between work overload and work engagement that is mediated by challenge appraisal. This is in contrast to Karatepe et al. (2014) who found that work overload is appraised as a challenge and that this increases work engagement.

There was a moderate correlation between work engagement and challenge appraisal, confirming research by Crawford et al. (2010) who argue that this positive

relationship between challenge appraisal and work engagement was consistent throughout their research, irrespective of the type of challenge demand.

Although there was a correlation between work engagement and challenge appraisal, this study indicated that there was no statistically significant relationship between work overload and challenge appraisal as expected. Ohly and Fritz (2010) argue that it is possibly the quantitative aspect of work overload that correlates with challenge appraisal. This may be the reason why this relationship was not found in the present study in which work overload was taken in its entirety and not split into quantitative and qualitative work overload. Hence, the results of the current study indicate that work overload is not appraised as a challenge.

According to Karatepe et al. (2014), it may be that work engagement mediates the effects of challenge stressors such that employees who are engaged appraise their work as challenging. The implication of this would be that employees who are engaged are more likely to appraise their work overload as a challenge, a path that was not tested in the present study.

It is noteworthy that this study confirmed a negative relationship between work overload and work engagement that is mediated by hindrance appraisal. The study indicated a moderate positive relationship between work overload and hindrance appraisal and a moderate negative relationship between work overload and work engagement, confirming the results of Webster et al. (2011) and Crawford et al. (2010). This indicates a direct negative path and an indirect negative path between work overload and work engagement. The respondents in this study who had high work overload had low work engagement and appraised their work overload as a hindrance.

The Role of Appraisal in the Relationship between Work Overload and Burnout

Studies by Yao, Jamal, and Demerouti (2015) and Crawford et al. (2010) found that both challenge and hindrance appraisals are positively related to burnout. The present study confirmed that hindrance appraisal has a strong correlation with burnout,

confirming that when a stressor is appraised as a hindrance, there is a higher likelihood of burnout.

The expectation that challenge appraisal mediates the negative relationship between work overload and burnout was not supported, indicating that when appraised as a challenge stressor, work overload does not increase or decrease the likelihood of burnout.

The moderate correlation between challenge appraisal and burnout was found to be negative and not positive as reported, implying that when individuals appraise a stressor as a challenge, they are less likely to experience burnout.

The present study confirmed the expectation that work overload has a positive relationship with burnout when mediated by hindrance appraisal. There was a moderate positive relationship between work overload and hindrance appraisal and a strong positive relationship between hindrance appraisal and burnout. The implication is that when work overload increases, the likelihood of burnout also increases if the work overload was appraised as a hindrance stressor.

This study found that the relationship between work overload and hours of work was moderate, confirming that work overload is more than only increased working hours, consistent with Kuschel (2015). Although the relationship between working hours and work overload was moderate, the relationship was still significant. In addition, the relationship between hours of work and burnout with hindrance appraisal was significant, supporting Jovanović et al. (2016) who found that burnout was associated with long working hours. It is possible that hours of work may serve as an early indicator of work overload leading to burnout directly or indirectly through an appraisal of this work overload as a hindrance. Furthermore, the relationship between hours of work and work engagement was significant and positive although weak, indicating that working long hours may not affect engagement as much as it may affect burnout or hindrance appraisal.

Overall, it appears that while challenge appraisal is important in the relationship between work overload and work engagement and/or burnout, hindrance appraisal is

more significant. It is possible that challenge appraisal of work overload is seen as a hygiene factor that needs to be present for people to have high work engagement. However, hindrance appraisal may serve as a de-motivator, thus indicating the importance of ensuring that work overload is not appraised as a hindrance. This study contradicts Liu and Shi (2010) who suggested that managers should give their employees challenges in order to increase engagement.

The Relationship between Work Engagement and Burnout

The study found confirmation of a moderate negative relationship between work engagement and burnout. However, as indicated by Crawford et al. (2010), it cannot be said that these two are entirely opposite because the correlation was not completely negative. It may be said that as engagement increases, burnout is likely to decrease. However, it is possible for burnout and engagement to increase at the same time in the same individual, confirming research by Moeller et al. (2018) and Salmela-Aro et al. (2016).

These results contradict Maslach (2003) and Maslach et al. (2001) who state that work engagement is the positive antithesis to burnout, both of which can be measured on the same MBI scale, with one end representing work engagement and the other representing burnout. This view implies that the presence of one means the absence of the other, which was not found to be true in this research.

Theoretical Contributions

In today's busy world, people are confronted with substantial workloads. This study contributes to the literature on the relationship between work overload and work engagement, which has been studied to a limited extent. Previous studies have focused on stressors in general or on challenge stressors, using work overload as an example. This study focuses on work overload as the main variable of interest.

The current study also contributes to the work engagement and burnout literature by confirming the role of appraisal in these two constructs. The role of appraisal confirms the individual aspect of how work engagement can be enhanced or burnout reduced through the way that the individual appraises the situation, in this case, work overload. The study, therefore, adds to the possible precursors to work engagement or burnout, that is, the role of appraising a stressor as a challenge or a hindrance.

The existence of challenge and hindrance appraisal as indicated by Searle and Auton (2015) was confirmed during the factor analysis. Since the correlation between these two was moderate, this indicates that employees may appraise stressors as a challenge, a hindrance or both.

Studies investigating challenge and hindrance appraisal in South Africa were not found, making the current study one of the few to examine the appraisal aspect of individual contributors to work engagement and burnout. In addition, the present study adds to the knowledge regarding the relationship between work overload and work engagement and burnout in the South African context, which has also been studied minimally.

Practical Implications

Liu and Shi (2010) argue that managers and organisations should attempt to remove hindrance stressors and try to increase the presence of challenge stressors in order to increase work engagement. This study found that it is more important to ensure that hindrance stressors are removed because these are significantly related to burnout and significantly negatively related to work engagement. Organisations should focus on ensuring that their employees do not appraise the work overload that they are experiencing as a hindrance since this may increase the likelihood of burnout and decrease work engagement.

Challenge appraisal was not found to be a significant mediator in the relationship between work overload and work engagement and burnout. However, a moderate

positive correlation between challenge appraisal and work engagement was found, indicating that it is important that employees have work that they appraise as helping them to learn and develop their skills. Challenge appraisal was also found to have a moderate negative relationship with burnout, indicating that when employees have work that they appraise as challenging, they are less likely to burn out. It is important to acknowledge that in this context, the challenge that the employees are searching for may not necessarily be in the form of work overload, slightly contradicting Crawford et al. (2010) who stated that the type of challenge does not matter. Managers and organisations need to find ways of challenging employees that do not increase the work overload. In order to continue challenging employees, there is a need to ensure that both the quantitative and qualitative components of workload are reasonable.

Hours of work for employees may be one of the easier variables to monitor. Managers and organisations need to monitor which of their employees are working long hours and ensure that this is not an indicator of high work overload that may be followed by a possible appraisal of this work overload as a hindrance, leading to possible burnout or decreased engagement. As shown in this research, the disadvantages of working long hours seem to far outweigh the benefits, and working long hours may be a precursor to experiencing high work overload.

Work engagement and burnout were not completely opposite, which implies that engaged employees may also be at risk of burnout. This concurs with the study of Moeller et al. (2018), which states that 20% of highly engaged employees are at risk of burnout. The current study confirms that it is no longer enough to focus only on employee engagement. Different mechanisms must be put in place to ensure that the engaged employees are not at risk of burnout. There was a moderate correlation between work overload and burnout, highlighting that employers should consider their employees' workloads and ensure that employees are not overloaded in order to reduce the likelihood of burnout.

Limitations and Recommendations for Future Research

There are various limitations to this study that require acknowledgement. The research comprised self-report questionnaires. This may have resulted in common method bias, which occurs when the variations in the responses are the result of the instrument instead of the respondents (Podsakoff, MacKenzie, & Podsakoff, 2012). Future research in this field could pose similar questions to people who are associated with the respondents, for example, supervisors and colleagues, in order to minimise the common method bias.

The cross-sectional nature of the research limits its ability to make causal inferences, which would be useful in this instance. A longitudinal study would have been helpful in which workload would be measured during Time 1 together with challenge and hindrance appraisal, and work engagement and burnout would be measured during Time 2.

Convenience and snowball sampling methodology was used and as a result, two-thirds of the respondents worked in the same industry. The results are, therefore, biased towards that industry and not necessarily indicative of the South African employed workforce. It may be useful to utilise stratified sampling techniques per industry in the future so that the various industries in South Africa could be adequately represented. In addition to stratifying the industries, employee levels could be stratified to determine if the results differ by level. This would determine if people at different employment levels appraise work overload in a similar way or if those in senior positions appraise it differently from those in junior positions.

This research was not able to confirm the factor structure of the tools used in the current study, specifically the UWES-9 and the BBI. It may be useful for future researchers to conduct confirmatory studies with the tools before the actual research to determine if there is a language issue that needs to be adjusted to suit the South African audience.

Future research should consider moderators of the relationship between work overload and burnout in an effort to reduce the strength of the relationship. This is necessary because it is unlikely that the world will revert to the time when technology,

competition and the requirements for service that result in high work overload were non-existent. It could thus be worthwhile to investigate the factors that would arrest the development path from work overload to burnout.

Conclusion

Workload or work overload has become a popular topic of conversation due to the fact that many people have more work than they can manage. Work overload is a job demand and a stressor that can be costly to organisations and individuals and, therefore, needs to be managed by both the individual and the organisation.

The current study shows that there are no positive benefits to work overload. Employees are not appraising work overload as a challenge stressor but rather as a hindrance stressor, which is strongly positively correlated with burnout. This study has shown the importance of ensuring that employees have challenge stressors, but not in the form of work overload. The study also demonstrated that when employees appraise work overload as a hindrance stressor, there is a negative link with engagement and a positive link with burnout.

Many organisations measure the engagement of their staff, but few have measures in place to highlight early indicators of burnout. There is the perception that providing employees are engaged, organisations will continue reaping the positive outcomes of this engagement. The contribution of this research is that work engagement and burnout are negatively correlated constructs but do not demonstrate perfect negative correlation, implying that the presence of one does not mean the absence of the other. As a result, highly engaged employees may be at risk of burnout, which would be costly for the individual and the organisation.

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Appendices

Appendix A: Ethics Clearance Letter

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02 August 2018

Mr Hulisani Dzuguda
School Of Management Studies
University of Cape Town

REF: REC 2018/008/066

Dear Hulisani Dzuguda,

Understanding the role of appraisal in the relationship between workload, work engagement and burnout in South African organisations

We are pleased to inform you that your ethics application has been approved. Unless otherwise specified this ethical clearance is valid for 1 year and may be renewed upon application.

Please be aware that you need to notify the Ethics Committee immediately should any aspect of your study regarding the engagement with participants as approved in this application, change. This may include aspects such as changes to the research design, questionnaires, or choice of participants. The ongoing ethical conduct throughout the duration of the study remains the responsibility of the principal investigator.

We wish you well for your research.

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Appendix B: Cover letter

UNIVERSITY OF CAPE TOWN
FACULTY OF COMMERCE
Igniting Knowledge and Opportunity

UNDERSTANDING THE ROLE OF APPRAISAL IN THE RELATIONSHIP BETWEEN WORKLOAD, WORK ENGAGEMENT AND BURNOUT

Dear Participant,

I invite you to participate in this research study. I am currently enrolled in the Masters in Industrial and Organisational Psychology at University of Cape Town and am in the process of writing my master's dissertation. The purpose of the research is to determine the role that is played by the way employees appraise workload on the relationship between workload, work engagement and burnout.

Your participation in this research project is completely voluntary. You may decline altogether, or leave blank any questions you don't wish to answer. There are no known risks to participation beyond those encountered in everyday life. Your responses will remain confidential and anonymous. Data from this research will be reported only as a collective combined total. No one other than the researcher will know your individual answers to this questionnaire.

The Commerce Faculty Ethics in Research Committee at the University of Cape Town has approved this study.

If you agree to participate in this project, please answer the questions on the questionnaire as best you can. It should take approximately *15 minutes* to complete.

Should you wish to receive a summarised report you will be requested to leave contact information at the end of the survey. This information will be used for the sole purpose of sending you the summarised findings and will not be accessible to anyone besides the researcher.

If you have any questions about this project, feel free to contact *Hulisani Dzuguda at DZGHUL001@myuct.ac.za.*

Thank you for your assistance in this important endeavor.

Sincerely yours,

Hulisani Dzuguda

By ticking this box you acknowledge that:

☐Your participation is voluntary, you can choose to withdraw from the research at any time.

Please click next to proceed with the survey Next

Appendix C : Distributed Questionnaire

Please complete the following information:

Industry	Extractive industries (Agriculture, Forestry & Paper, Mining, Oil & Gas)
	Transformative industries (Construction & building, Utilities & energy, Manufacturing)
	Distributive services (Transportation & logistics, Communication, Wholesale, Retail)
	Producer services (Banking & financial services, Insurance, Real estate, Accounting, Consulting, Legal services, Miscellaneous services)
	Personal services (Domestic services, Hotel, Eating & drinking, Repair services, Laundry, Barber & beauty services, Entertainment & leisure, Media & advertising, Miscellaneous personal services)
	Social services (Medical & health services, Hospital, Education, Welfare and religious services, Non-profit organisations, Postal services, Regulators, SETA's, Miscellaneous social services
Job level	Top management
	Senior Management
	Professionally qualified and experienced specialists and mid-management
	Skilled technical and academically qualified workers, junior management, supervisors, foremen, and superintendents
	Semi-skilled and discretionary decision making
	Unskilled and defined decision making
Tenure at current employer	Shorter than 3 months
	Longer than 3 months but less than 1 year
	Longer than 1 year but less than 3 years
	Longer than 3 years but less than 5 years
	Longer than 5 years but less than 7 years
	Longer than 7 years but less than 10 years
	Longer than 10 years
Age	18 - 24 years
	25 - 30 years
	30 - 35 years

	35 - 40 years
	40 - 45 years
	45 - 50 years
	50 - 55 years
	55 - 60 years
	60 - 65 years
	Older than 65 years
Gender	Male
	Female
	Other
	Prefer not to answer
Race	Asian
	African
	Coloured
	Indian
	White/Caucasian
	Other
	Prefer not to answer
Average hours you work per week	Shorter than 35 hours
	Longer than 35 but shorter than 40 hours
	Longer than 40 but shorter than 45 hours
	Longer than 45 but shorter than 50 hours
	Longer than 50 but shorter than 55 hours
	Longer than 55 but shorter than 60 hours
	Longer than 60 but shorter than 65 hours
	Longer than 65 but shorter than 70 hours
	Longer than 70 but shorter than 75 hours
	Longer than 75 but shorter than 80 hours
	Longer than 80 hours
How many months have you been working these hours	

Please answer the following questions regarding your job

	Less than once per month or never	Once or twice per month	Once or twice per week	Once or twice per day	Several times per day
1. How often does your job require you to work very fast?					
2. How often does your job require you to work very hard?					
3. How often does your job leave you with little time to get things done?					
4. How often is there a great deal to be done?					
5. How often do you have to do more work than you can do well?					
6. How often do you have work which you feel you do not have the skills to do well?					

Please answer the following questions regarding your current workload

The workload I currently experience	1 = strongly disagree	2 = disagree	3 = neither agree nor disagree	4 = agree	5 = strongly agree
1. Will help me to learn a lot					
2. Will help me to develop my skills					
3. Will show me I can do something new					
4. Will keep me focused on doing well					
5. Will hinder any achievements I might have					
6. will restrict my capabilities					
7. will limit how well I can do					
8. will prevent me from mastering difficult aspects of the work					

The following statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the “0” (zero) in the space after the statement. If you have had this feeling, indicate how often you felt it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

	0 Never Never	1 Almost Never A few times a year or less	2 Rarely Once a month or less	3 Sometimes A few times a month	4 Often Once a week	5 Very Often A few times a week	6 Always Every day
1. At my work, I feel bursting with energy.							
2. At my job, I feel strong and vigorous.							
3. I am enthusiastic about my job.							
4. My job inspires me.							
5. When I get up in the morning, I feel like going to work.							
6. I feel happy when I am working intensely.							
7. I am proud of the work that I do.							
8. I am immersed in my work.							
9. I get carried away when I am working.							

Please choose the alternative that best describes your situation
(estimation from previous month)

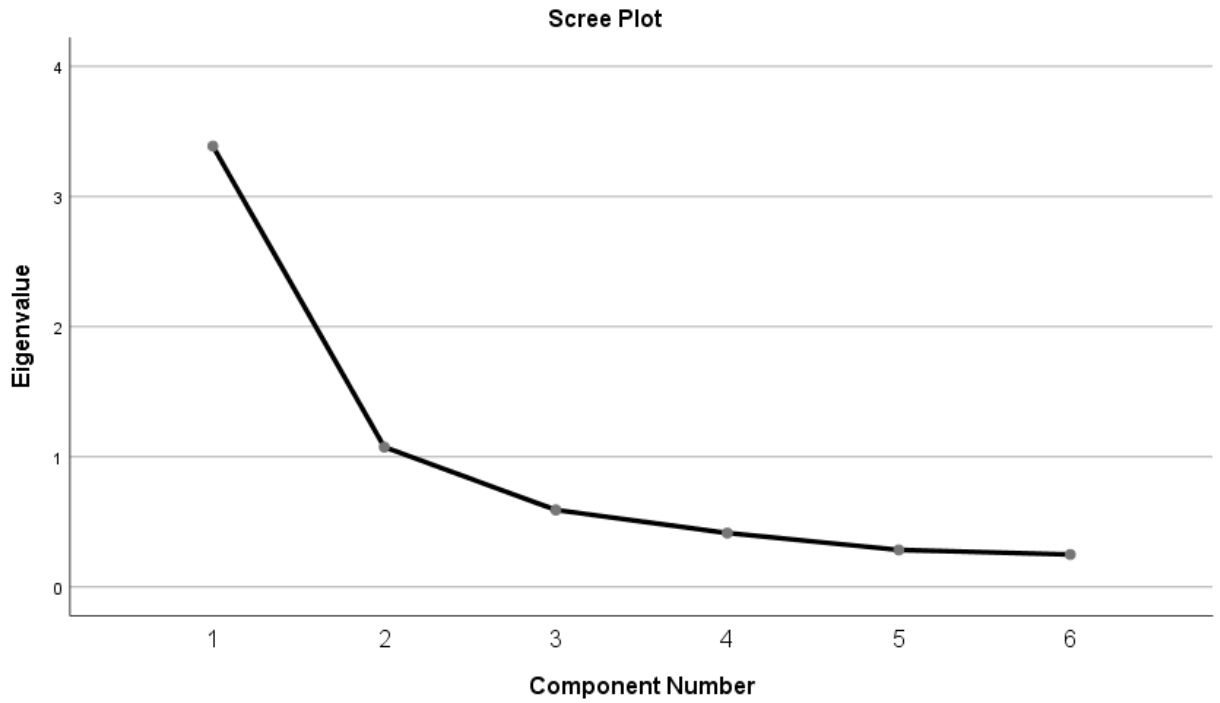
	Completely disagree 1	*Disagree 2*	*Partly disagree 3*	*Partly agree 4*	*Agree 5*	*Completely Agree 6*
1. I am snowed under with work.						
2. I feel dispirited at work and I think of leaving my job.						
3. I often sleep poorly because of the circumstances at work.						
4. I frequently question the value of my work.						
5. I feel that I have gradually less to give.						
6. My expectations to my job and to my performance have reduced						
7. I constantly have bad conscience because my work forces me to neglect my close friends and relatives.						
8. I feel that I am gradually losing interest in my customers or my other employees.						
9. Honestly I felt more appreciated at work before.						

Should you wish to receive a summarised version of the results, please complete the following information:

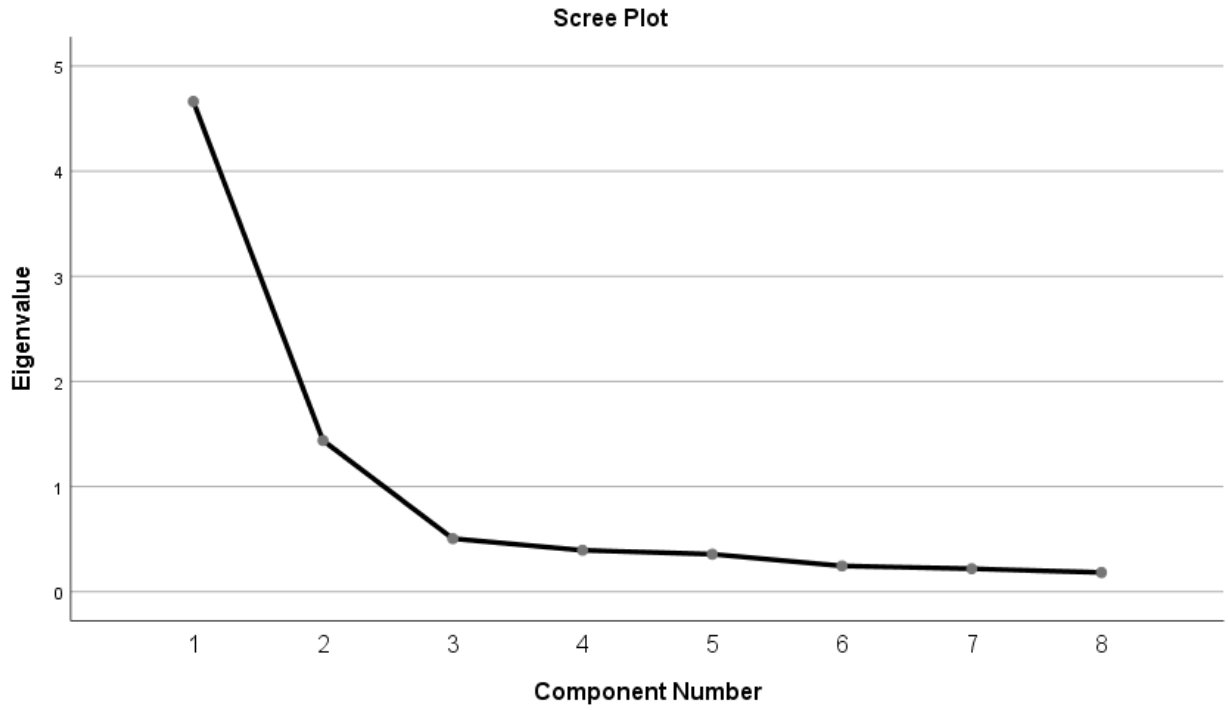
Name and Surname	
E-mail address	

Appendix D: Scree Plots

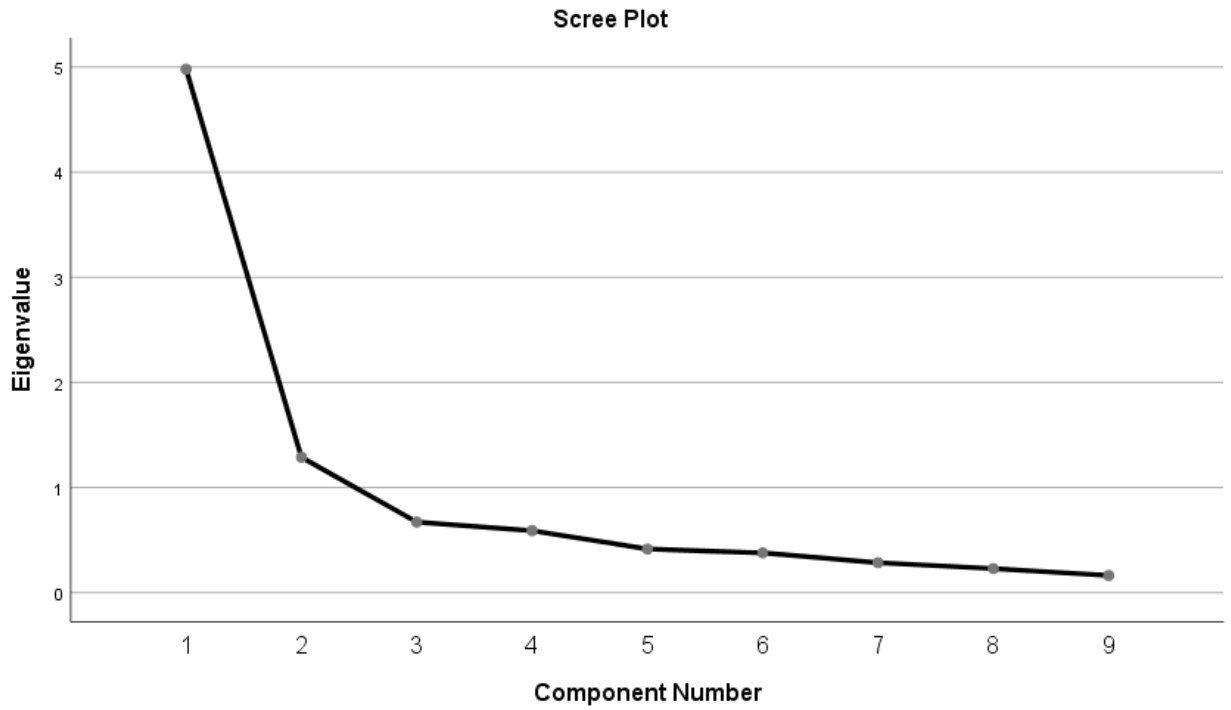
Work Overload



Challenge and Hindrance Appraisal



Burnout



Work Engagement