

INVESTIGATING THE INFLUENCE OF LEADERSHIP STYLES ON WORK  
STRESS, JOB SATISFACTION AND WORK ENGAGEMENT OF HEALTH  
CARE PROFESSIONALS WITHIN THE KHOMAS REGION, NAMIBIA

A MINI THESIS SUBMITTED IN PARTIAL FULFILMENT

OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS (INDUSTRIAL PSYCHOLOGY)

OF

THE UNIVERSITY OF NAMIBIA

BY

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SEPTEMBER 2022

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## **Abstract**

Within the sub-Saharan context where resources are limited, strong and committed leadership is important for the positive functioning of health care facilities. This study investigated the impact of leadership styles on the work stress, job satisfaction and work engagement of health care professionals within the Khomas region, Namibia. This study aimed at determining the prevalent leadership styles, work stress levels, job satisfaction and work engagement of health care professionals within the Namibian healthcare sector. Furthermore, this study provided practical recommendations to help improve medical care by enhancing the leadership styles, engagement, job satisfaction and decreasing work stress levels of medical professionals. A quantitative research approach via a questionnaire was used to collect data on the biographical details, leadership styles, work stress, job satisfaction and work engagement of employees. The sample consisted of  $n=179$  healthcare professionals working within private and state facilities within the quantitative research method. Correlations were found between the subconstructs of leadership styles and the subconstructs work stress, job satisfaction and work engagement. Negative relationships were found between intellectual stimulation and role ambiguity ( $r = -.37, p < 0.05$ ; medium effect); intellectual stimulation and co-workers ( $r = -.37, p < 0.05$ ; medium effect); transformational leadership and co-workers ( $r = -.31, p < 0.05$ ; medium effect); laissez-faire and dedication ( $r = -.31, p < 0.05$ ; medium effect); laissez-faire and work engagement ( $r = -.30, p < 0.05$ ; medium effect). Laissez-faire reported a positive relationship with work stress ( $r = .42, p < 0.05$ ; medium effect). Practical implementations include encouraging supportive leadership, implementation of protocols to reduce stress levels and recognising high performance can increase engagement. Social projects and prioritising the physical

and mental health of employees may enhance the well-being of employees. This novel study is the first of its kind to investigate these dimensions within the healthcare sector in the Khomas region and adds to the existing knowledge within the healthcare sector for future researchers. This study will assist healthcare facilities to develop interventions to enhance job satisfaction, work engagement and decrease job stress.

**Keywords:** leadership styles, work stress, job satisfaction, work engagement, healthcare professionals

## **Declarations**

I, Michael Nicolaas Hough, hereby declare that this study is my own work and is a true reflection of my research, and that this work, or any part thereof has not been submitted for a degree at any other institution.

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MICHAEL N. HOUGH



SEPTEMBER 2022

**Name of Student**

**Signature**

**Date**

### **Acknowledgements:**

- I would like to thank the Almighty God for blessing me with the talents to succeed and complete this study.
- I would like to acknowledge the support of my parents and in-laws for their encouragement and love throughout this challenging time.
- Thank you to the various state and private facilities for the opportunity to conduct this research during COVID-19. Throughout this difficult time, I have only received support from these institutions and the cooperation of staff has been fantastic. Thank you for the time you took to assist me and making this study possible.
- A heartfelt thank you to my supervisor Dr W. R. Pieters for your support, motivation and guidance throughout this study. You have made an exceptional impact on me, personally and academically. During this time, you have kept me grounded, but also lifted my spirits when times were tough (and there have been a few). Thank you for your guidance during the statistical analysis which was sorely needed. I thank you.
- Thank you to Sr. Emma, Sr. Christina and Sr. Rooi for assisting me with the data collection. Without you this would not have been possible.
- To all the people who I did not name personally (you know who you are), I thank you for your time and patience in making this dream a reality.

**Dedication:**

I would like to dedicate this dissertation to my family, especially my wife Nicolene, and sons, Neil and Nicolass. Thank you for your love, support and dealing with me when I was tired and grumpy. I love you.

## **Chapter 1: Introduction**

### **1.1 Orientation of the study**

Within the sub-Saharan context where resources are limited, strong and committed leadership is important for the positive functioning of health care facilities (Mathole et al., 2018). Additionally, leadership theories have received considerable attention from researchers in the field of psychology, and many have attempted to provide a concise and comprehensive definition; however, few have succeeded (Avolio et al., 2009; Nelson & Quick, 2011). This study distinguished between transactional and transformative leadership. Burns (1978) and Lee (2020) define transactional leadership as a bond between superiors and subordinates through a reward-exchange system to increase the progression of the organisational and the individual. Transformational leadership as defined by Warrilow (2012) is the direct influence on individuals and collectives, and inspiring positive change by accounting for their personal and shared pursuits.

Bakker and Schaufeli (2015) defined engagement as a rewarding state of mind resulting in increased dedication and motivation. Hassan and Ahmed (2011) observed a direct correlation between leadership and work engagement. Furthermore, work engagement is important when measuring the effect of leadership on job satisfaction (Giallonardo et al., 2010). Leadership styles have been shown to influence job satisfaction and work stress (Vuong & Rajagopal, 2019). This study aimed at identifying the prevalent leadership styles, job stress levels, job satisfaction levels and work engagement levels within the healthcare sector, whilst providing practical recommendations to improve the functioning of healthcare professionals.

## **1.2 Statement of the problem**

There is need for investigations into the effect of leadership styles on the levels of work stress, job satisfaction and work engagement of subordinates and leaders within Namibia. The effects of the stated variables have been found to be inextricably linked (Asif et al., 2019; Fors Brandebo et al., 2019; Peiro & Rodriguez, 2008; Wang et al., 2019). This study may provide data relating to the type of facility and distinguishing between high care, rehabilitation, maternity, and general hospital care as environmental influences play a role in the well-being and stress levels of medical professionals (Islam et al., 2017).

Job satisfaction has been shown to positively influence job performance, occupational commitment, and pro-organisation behaviour (Bakan et al., 2014; Zhang, 2020). Vigorousness and dedication may have positive effects on the home life due to positive relationships with work-home enablement and negative relationships with work-home conflict (Listau, Christensen, & Innstrand, 2017). Furthermore, job satisfaction has been shown to mediate the effects on job stress and turnover tendency (Jou, Kuo, & Tang, 2019).

## **1.3 Objectives of the study**

- To determine by means of non-experimental research design the effects of leadership styles on work stress, job satisfaction and work engagement of employees at medical facilities in the Khomas Region.
- To investigate if work stress, job satisfaction and work engagement of employees are experienced differently based on sex, age, tenure, rank, number of dependents, educational qualification, and marital status.

## **1.4 Hypothesis of the study**

### **Null Hypothesis (H0)**

The variance in work stress, job satisfaction and work engagement of employees at medical facilities in the Khomas Region cannot be statistically explained by transformational and transactional leadership.

### **Alternative Hypothesis (H1)**

The variance in work stress, job satisfaction and work engagement of employees at medical facilities in the Khomas Region can be statistically explained by transformational and transactional leadership.

## **1.5 Significance of the study**

The study aimed at supplementing the field of industrial-organisation psychology (I/O Psychology) with research regarding leadership styles and the influence thereof. Within the work environment, transformational leadership is important when building team cohesion and team effectiveness (Piotrowski & Watt, 2011). Job satisfaction has been shown to make the work environment more satisfying and influences organisational citizenship behaviour and decrease counterproductive work behaviour (Bowling, 2010).

## **1.6 Limitations of the study**

Due to the logistical aspects of traveling, the sample size consisted out of respondents within the Khomas Region (n=250). This was mainly because of



Namibia's immense size and travelling long distances was not possible because of time and monetary restrictions. The risk of infection, due to the Covid-19 epidemic, was also considered by the researcher. Additional steps were taken to ensure the safety of participants.

### **1.7 Delimitations of the study**

The scope of the research was specifically aimed at practicing professionals that consisted of medical doctors, nurses, physiotherapists, and occupational therapists. Due to the Covid-19 epidemic, considerations were made to control the spread of the virus through various means such as regular hand sanitation, wearing of face masks and social distancing. Furthermore, the researcher adhered to all regulations as set forth by the Namibian Government and the Ministry of Health and Social Services. To further limit the danger towards participants an electronic version of the survey (via Google Docs) was also used.

## **2. Literature Review and Theoretical Framework**

Hu et al. (2015) found that transformational leadership had a positive effect on team behaviour, safety and effectiveness regarding the development of surgeon leadership skills. Job satisfaction is a quantified measure of workers' satisfaction relating to what they perceive to want from a job and what they perceive to have in their job (Payne & Webber, 2006; Spector, 1997). Transactional and transformational leadership can improve the work engagement of employees, this is achieved via the supply of contingent rewards (Breevaart et al., 2014). Furthermore, Tims et al.

(2011) state that this can give rise to employees who are more creative, positive and self-confident.

Positive correlations have been found between transformational and transactional leadership and job satisfaction (Nazim, 2016; Jannesaria, Khorvashb, & Iravanic, 2013). Pieters (2017) found a positive correlation between job satisfaction (intrinsic and extrinsic) and work engagement amongst banking staff. Furthermore, work engagement has been shown to negatively affect burnout (Nerstad, Wong, & Richardsen, 2019).

Coetzee and De Villiers (2010) found a noteworthy relationship between job stresses and the level of work engagement. Mol et al., (2018) found work engagement to counterpoise work stress. Jang, Lee, and Lee, (2015) stated that the job satisfaction of nurses correlates with their job stress levels. Work stress has been shown to influence various aspects of employees' lives including their mental state (Lee & Kang, 2019).

The job demands-resources model (JD-R model) will be utilised as the theoretical framework to be used in this study. Examination of the JD-R model specifies that particular components within a specific occupation can either be classified as a job demand or a resource (Zablah et al., 2012). This assumption suggests that the disparity between the demands of the job and the resources available may result in the individual experiencing stress and influencing job engagement (Marathe, Balasubramanian, & Chalil, 2019).

### **3. Research Methods**

#### **3.1 Research Design**

This study was correlation research within the quantitative design. The population consisted out of medical practitioners, registered nurses and/or midwives, registered occupational therapists and registered physiotherapists. Data was obtained via the survey method. Survey research is defined as "the collection of information from a sample of individuals through their responses to questions" (Check & Schutt, 2012, p. 160).

This type of research can be conducted in a pen-and-paper format and due to the ease at which they can be distributed and collected again makes it the preferred research method for the specific type of study. The duration of the questionnaires were between 30 to 45 minutes. With the additional knowledge gained, a posteriori hypothesis was possible due to the study's use of exploratory research.

#### **3.2 Population and sample**

For the purpose of this study the sample size was  $n=250$ . As per the Health Practitioners Council of Namibia (HPCNA), as of June 2020 there are 1229 registered medical practitioners, 10109 registered nurses and/or midwives, 99 practicing occupational therapists and 155 practicing physical therapists within Namibia. Unfortunately, the HPCNA do not specifically store the data of registered professionals according to their region of practice. The intention of the study was to make use of convenience sampling technique which is defined as the population

components which are included in the sample based on the ease of access (Martínez-Mesa et al., 2016).

### **3.3 Research Instruments**

The survey consisted out of five sections of which, four were measurement instruments. The first section assessed the respondent's demographic characteristics such as age, gender, education, years in the industry, how many dependents and relationship status.

The second section consisted out of the revised *Multifactor Leadership Questionnaire* developed by Avolio and Bass (2004). The questionnaire consisted of 28 items. Transformational leadership consisted out of inspirational motivation, intellectual stimulation and individual consideration. Transactional leadership consisted of contingent rewards, management by exception- active, management by exception- passive and laissez-faire.

Work stress consisted out of role ambiguity, job security, autonomy and workload. Role ambiguity was developed by Rizzo, House, and Lirtzman (1970). For job security and workload/overload these dimensions were used as part of the *Job Demands-Resources Questionnaire* developed by Jackson and Rothmann (2005). For autonomy the *Work Related Basic Psychological Need Satisfaction Questionnaire* was used (Van den Broeck et al., 2008). This section of the questionnaire consisted out of 23 items.

Job satisfaction was measured by the revised *Job Satisfaction Survey* (20 items) by Spector (1994). The survey focused only on pay, promotion, supervision, co-workers and nature of work.

Work engagement was assessed by using the *Utrecht Work Engagement Scale* (UWES-9) developed by Schaufeli et al. (2006), which focused on vigour, dedication and absorption.

### **3.4 Procedure**

Firstly, permission was requested from the ethics committee (UNAM). After being granted permission by the ethics committee at the University of Namibia permission from the Ministry of Health and Social Service was requested. Two private medical facilities – Roman Catholic Private Hospital and Mediclinic Private Hospital – and two state hospitals – Katutura State Hospital and Windhoek Central State Hospital – were approached for the study. All four are situated within Namibia. The respective organisations or healthcare facilities where the subjects work was approached for permission to include their employees as part of the research sample. Once all the relevant authorisations were granted, then only was permission obtained from participants. The purpose of the research was explained to the participants and their right to refrain from participating in the study, the specific ethical considerations were discussed in the research ethics section. The duration of the questionnaires was expected to be between 30 to 45 minutes. Questionnaires were collected after a few days and stored in a locked cabinet which was locked and stored in a storage container. Only the researcher has access to the storage facility.

### **3.5 Data Analysis**

The Statistical Package for the Social Sciences (SPSS) was used to calculate the mean and standard deviation. The reliability of the scales was assessed (Cronbach alpha). Correlation analysis was done to determine the relationships between transformational and transactional leadership, work stress, job satisfaction and work engagement. Correlation research is a form of non-experimental research. Correlation research requires the researcher to measure two variables as to determine the statistical relationship between them i.e. to determining the strength and direction of the relationships. Stepwise multiple regression analysis was used to explore the predictive ability of transformational and transactional leadership on work stress, job satisfaction and work engagement i.e. determining the predictability of leadership styles (transformative and transactional) on work engagement, job satisfaction and work stress.

### **4. Research Ethics**

Any risk to participants was minimised and carefully considered and continuously assessed. Participants were informed about the study and that they may withdraw from the study without any negative consequences, subsequently informed consent was obtained. Participation in the study was voluntary. No names were used, and questionnaires had a unique numbering code assigned. All the information of participants was always kept confidential and anonymous. Data was stored away in a locked file cabinet at a secure storage facility, with only the researcher having access to the data.

## **Chapter 2: Literature Review and theoretical framework**

### **2.1 Introduction**

This chapter deals with the definitions of transactional leadership, transformational leadership, job satisfaction, job stress and work engagement. Various studies provide definitions and relationships between the constructs (Hu et al., 2015; Payne & Webber, 2006; Spector, 1997; Breevaart et al., 2014; Jannesaria, Khorvashb, & Iravanic, 2013; Nazim, 2016; Pieters, 2017; Burns, 2010; Odumeru & Ogbonna, 2013; Bowen et al., 2014; Belias & Koustelios, 2014; Locke, 1976; Bakker & Schaufeli, 2015). Two types of leadership are defined in this study, transformational leadership and transactional leadership. Furthermore, job satisfaction; job stress and work engagement are also defined. Additionally, the various constructs are also defined from different perspectives and how the definitions align. This chapter will define each construct, provide antecedents of the construct, outcomes of the constructs, theories related to the construct, models related to the construct and the relationships between the various constructs. The study will discuss leadership, work stress, job satisfaction and work engagement in that order. For this study the job demands-resources model (JD-R model) will be the model used as the framework for the study.

### **2.2 Leadership**

#### **2.2.1 Definitions**

Even though Yukl (2012) provides an acceptable definition for a broad conceptualisation of leadership, further descriptions of transactional and

transformational leadership should be considered as these constitute the dimensions for measuring leadership for this study. Management-by-exception (active) is viewed as pre-emptive action while focusing on preventing negative behaviours, while management-by-exception (passive) is retroactive action, and it is focused on correcting negative behaviour after it has occurred (Hoffmeister et al., 2014).

Sanctions or punishment can be handed down via either management-by-exception (active) or (passive) to deter negative behaviours by employees (Hoffmeister et al., 2014). Transformational leadership is the process whereby leadership and followers assist one another to enhance and develop increased levels of confidence and motivation (Burns, 2010). The definition by Burns (2010) will serve as the operational definition of transformational leadership for this study. The transactional leadership style is based on the premise that leaders require that followers be compliant via the use of either rewarding or punishing their actions (Odumeru & Ogbonna, 2013).

The following definitions will constitute the operational definitions for transactional leadership in this study:

- 1. Contingent reward and punishment:** Contingent reward can be manifested in the form of praise as and when specific goals or tasks are achieved in advance, or to maintain the appropriate working speed of followers throughout the work process (Bodla & Nawaz, 2010; Lai, 2011; Odumeru & Ogbonna, 2013).
- 2. Management-by-exception (active):** This also requires that leaders consistently review how followers perform and then make the required changes throughout the course of the work process (Bodla & Nawaz, 2010; Lai, 2011; Odumeru & Ogbonna, 2013).



**3. Management-by-exception (passive):** This requires leaders to resolve issues or problems as they appear and then provide solutions to resolve these concerns (Bodla & Nawaz, 2010; Lai, 2011; Odumeru & Ogbonna, 2013).

Transformational leaders are aware of both organisational and individual requirements; however, contrary to transactional leadership, transformational leaders rise above these needs by arousing and satisfying higher needs within each individual (Hoffmeister et al., 2014). Transformational leadership can be divided into four dimensions (i.e., idealised influence, inspirational motivation, intellectual stimulation, and individualised consideration) (Guay, 2013). Guay (2013) defines these dimensions as follows: idealised influence highlights the importance of trusting, valuing and ethical behaviours. Inspirational motivation comprises of leadership that promotes work that is meaningful and challenging for employees by utilising inspirational messages for the purpose of arousing employees' feelings. Intellectual stimulation is based on challenging existing expectations, opinions, and norms, while encouraging novel ways of thinking. Individualised consideration implies that leadership considers the characteristics of employees such as desires, ability and their goals while serving as coaches and mentors (Guay, 2013). These dimensions are defined as follows:

**1. Charisma or idealised influence:** This dimension can be described in two ways: the first identifies the traits of the leaders (attributes) and how the leader acts and behaves (behaviours) and is exemplified by influencing (Bodla & Nawaz, 2010; Lai, 2011; Stafford, 2010; Warrilow, 2012).

**2. Individualised consideration:** These types of leaders act empathically and supportively with open two-way channels of communication and challenging

followers. (Bodla & Nawaz, 2010; Lai, 2011; Stafford, 2010; Warrilow, 2012).

**3. Intellectual stimulation:** These leaders challenge followers' assumptions, promote risk-taking and encourage ideas from team members. Intellectual stimulation is described by thinking (Bodla & Nawaz, 2010; Lai, 2011; Stafford, 2010; Warrilow, 2012).

**4. Inspirational motivation:** Transformational leaders advocate for their followers (Bodla & Nawaz, 2010; Lai, 2011; Stafford, 2010; Warrilow, 2012).

For this study, transformational leadership will be defined as a leadership style that aims to make changes regarding the existing status quo within the organisation through the articulation of problems present within the organisation or system and constructing visions of what the organisation could be in the future to employees or followers.

### **2.2.2 Antecedents of transactional and transformational leadership**

Lopez (2013) conducted research on the influence of personality traits of counsellor educators and leadership style outcomes. The study found that transformational leaders scored low on the neuroticism personality trait and high on extraversion, openness to experience, agreeableness, and conscientiousness (Lopez, 2013). Transactional leaders scored high on extraversion and openness to experience (Lopez, 2013). Personality types and sources of power have been shown to be

predictors of transactional leadership and transformational leadership (Yahaya et al., 2017).

Studies have shown correlations between emotional intelligence and leadership style (Brown, 2014; Maamari & Majdalani, 2017; Rahman, Ferdausy & Uddin, 2012; Ramchunder & Martins 2014). High levels of emotional intelligence allow for improved communication between leaders and followers, execution of tasks and length of employment (Maamari & Majdalani, 2017). Furthermore, social relationships between employees and leaders are enhanced due to managers' ability to motivate, recognise employees' work and find innovative ways to reward employees (Maamari & Moidalani, 2017).

Furtner, Baldegger and Rauthmann (2013) found that self-observation and self-goal setting predicted transactional and transformational leadership. For transactional leadership, Furtner et al. (2013) found that self-goal setting and self-observation predicted transactional leadership due to leaders being required to formulate goals, monitor themselves, employees, and account for contextual factors wherein these transactions occur.

Motivation has been shown to be a precursor of leadership style (Kanat-Maymon, Elimelech & Roth, 2020). It was found that supervisors' leadership style was viewed as more transformational by followers due to leaders being motivated autonomously. This was also true in that subordinates exhibited controlled work motivation as well (Kanat-Maymon et al., 2020).

Studies have found that leadership styles correlate to the work environment of employees (Ali et al., 2015; Asiri et al., 2016; Cummings et al., 2018). Cummings et al. (2018) conducted a systematic review on the available literature regarding

leadership styles and influences on the work environment. Asiri et al. (2016) indicate that for managers to enhance nurses' working environments, it requires that appropriate leadership be practiced in conjunction with strategies that empower staff, including being part of making decisions within the organisation.

### **2.2.3 Outcomes of transformational and transactional leadership**

Nguyen (2020) found that transactional leadership increased organisational leadership. Nguyen (2020) suggests that transactional leadership increases organisational commitment due to cultural aspects within a society. Studies have shown that transformational leadership has a positive influence on organisational commitment (Al-Yami, Galdas, & Watson, 2018; Dlamini, Garg & Muchie, 2017). Dlamini et al. (2017) found that transformational leadership has a significant positive effect on affective commitment. This indicates that transformational leadership can improve satisfaction of employees and their commitment towards the nursing profession (Al-Yami et al., 2018).

Leadership styles have been shown to influence employee and organisational performance outcomes (Asrar-ul-Haq & Kuchinke, 2016; Ejere & Ugochukwu, 2013). Both transformational leadership and transactional leadership have been found to have positive impacts on the performance of organisations (Ejere & Ugochukwu, 2013).

Wong, Cummings and Ducharme (2013) found an association between leadership and patient satisfaction. Transformational leadership has been shown to positively influence organisational commitment and employee retention, while in turn

positively impacting patient recovery and the sustainability of healthcare organisations (Casida & Parker, 2011).

## **2.2.4 Theories related to leadership styles**

### **2.2.4.1 Behavioural approach to leadership**

Behavioural theory can be divided into two parts: task behaviour and relationship behaviour. Task behaviour allows for accomplishing specific goals (Northouse, 2015). Goal accomplishment is achieved by developing and growing employees. Relationship behaviour focusses on helping employees find comfort with themselves, others and with the situations they may find themselves in (Northouse, 2015).

The results indicated that task or people orientation towards how workers perform was pointless until decisions made between staff and leaders merged (Johnson, 2014). Additionally, behaviours of leaders were linked to the performance of employees (Johnson, 2014). In their study, Moreno, and Hickmann (2012) found that transformational leadership behaviours have a direct influence on the performance and the outcomes of the organisation. Larsson and Vinberg (2010) found that certain behaviours are found within successful organisations. These behaviours include: being strategic; effective communication and information transference, exuding authority and responsibility; establishing a culture that facilitates learning; conversing with employees; simple and direct instructions; humility and trustworthiness and being visible within the organisation.

## 2.2.5 Model related to leadership

### 2.2.5.1 Full Range Leadership Model

The Full Range Leadership Model (Table 1) was developed from the work of Burns (1978) (Stafford, 2010).

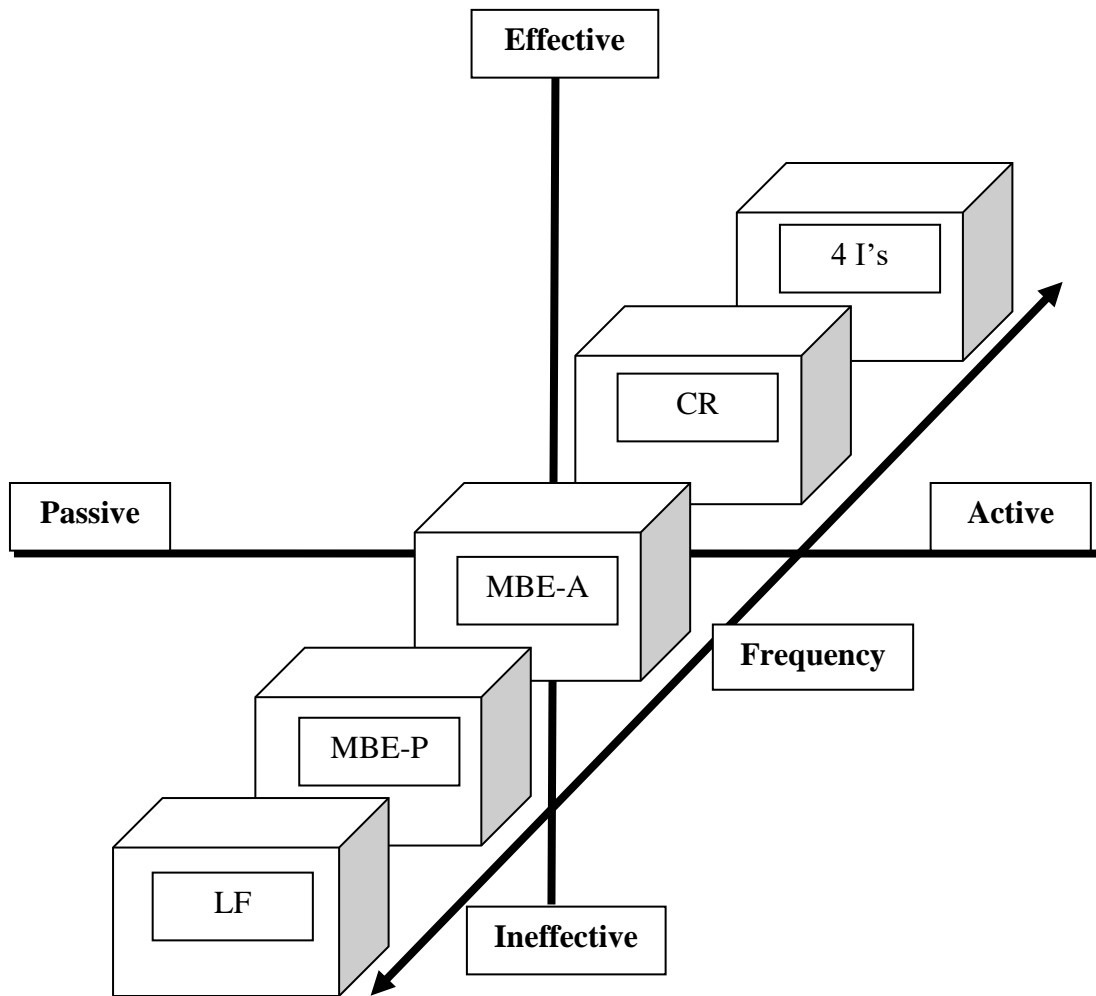
Table 1

*Full Range Leadership Model continuum* (Source: Stafford, 2010)

Transactional		Transformational				
Management by Exception (MBE)		Contingent Reward (CR)	Individual Consideration (IC) <i>Caring</i>	Intellectual Stimulation (IS) <i>Thinking</i>	Inspirational Motivation (IM) <i>Charming</i>	Idealised Influence (II) <i>Influencing</i>
Passive MBE	Active MBE					
<b>Laissez-Faire</b>						
Hands-Off Leadership						

The Full Range Leadership Model incorporates the laissez-faire, transactional and transformational leadership styles on a continuum as seen in Figure 1 (Vilhauer, 2018).

Behaviours of leaders are situational in that their behaviours are subject to the circumstances they find themselves in (Vilhauer, 2018). The model can be divided into three distinct elements; the first is concerned with how frequent a specific style is applied. The second dimension is concerned with how effective each style is. The third dimension considers the activeness or passiveness of each style along the continuum (Vilhauer, 2018).



**NON-LEADERSHIP:**  
 LF: Laissez-Faire

**TRANSACTIONAL:**  
 MBE-P Management-by-Exception, Passive  
 MBE-A Management-by-Exception, Active  
 CR Contingent Reward

**TRANSFORMATIONAL 4 I'S**  
 Idealised Influence  
 Inspirational Motivation  
 Intellectual Stimulation  
 Individualised Consideration

Figure 1

*Full Range Leadership Model* (Source: Bass & Avolio, 1994)

When one considers these dimensions together along the presented continuum, it is apparent that transformational leadership is viewed as the most effective, whilst laissez-faire is viewed as the least effective (Vilhauer, 2018). The Full Range Leadership Model incorporates laissez-faire, transactional leadership and transformational leadership into one comprehensive model (MacKie, 2014). Transformational leadership is based on trusting relationships, behaving with integrity and moral principles, inspirational and motivational, innovative ways (MacKie, 2014). Transactional leadership is viewed as constructive (MBE-P Management-by-Exception, Passive; MBE-A Management-by-Exception, Active; CR Contingent Reward), whilst laissez-faire leadership is absent leadership.

#### **2.2.6 Relationship between leadership styles and work stress**

Various studies have found that leadership styles influence work stress and other leadership related outcomes such as presenteeism, employee behaviours and psychological strain (Dartey-Baah & Ampofo, 2015; Ebrahimzade et al., 2015; George, Chiba, & Scheepers, 2017; Hoert, Herd, & Hambrick, 2018; Pishgooie et al., 2019; Schmidt et al., 2014; Yao et al., 2014).

Transformational leadership influenced work stress negatively. (Dartey-Baah & Ampofo, 2015). These findings are supported by Salem (2015) who found that transformational leadership has a significant negative effect on the occupational stress of hospitality employees. From a transformational leadership viewpoint, the results indicate that these types of leaders can inspire followers to be confident and put emphasis on human factors in the development and enhancement of work environments (Salem, 2015). Transactional leadership was found to negatively



impact work stress (Dartey-Baah & Ampofo, 2015; Pishgooie et al., 2018; Siregar, 2018). Research indicates that managers who employ the transactional leadership style can reduce employees' stress levels (Siregar, 2018).

Additionally, the inherent stress of working within a high-paced and demanding field such as the banking sector may require that more support be provided for employees' well-being, which transactional leadership does not provide, and this may lead to increased levels of work stress for these employees (Dartey-Baah & Ampofo, 2015). Alternatively, Pishgooie et al. (2018) identified that transactional leadership may be more effective regarding negatively impacting occupational stress within organisations which tend to be more rigid and bureaucratic.

Four dimensions of transformational leadership, moral behaviour; charisma; individualised consideration and inspirational motivation, reduced negative employee behaviour (Yao et al., 2014). Furthermore, three dimensions of transformational leadership, moral behaviour; charisma and individualised consideration, can alleviate work stress. Schmidt et al. (2014) found that transformational leadership negatively correlated to psychological strain. This relationship was mediated by access to organisational and individual psychosocial resources (Schmidt et al., 2014). Furthermore, leaders who experience high levels of stress may exhibit poor leadership skills due to stress draining their cognitive and emotional resources, which in turn prevents leaders from effective functioning within their specific roles (Harms et al., 2017). This stress experienced by the leader may also result in negative behaviour towards followers or employees (Harms et al., 2017). Negussie and Demissie (2013) found that contingent rewards correlated to both extrinsic and intrinsic job satisfaction, while all dimensions of transformational leadership correlated to job satisfaction intrinsically and extrinsically.

### **2.2.7 Relationship between leadership styles and job satisfaction**

Numerous studies have found a correlation between leadership styles on job satisfaction within various sectors of employment (Ali, Sidow, & Guleid, 2013; Aydin, Sarier, & Uysal, 2013; Bateh & Heyliger, 2014; Ghorbanian, Bahadori, & Nejati, 2012; Negussie & Demissie, 2013; Voon et al., 2011).

Ali et al. (2013) found that both transformational and transactional leadership had significantly correlated to the job satisfaction of employees. When distinguishing between the influence of these leadership styles, it was found that transformational leadership had a greater positive influence on job satisfaction and that instructors favoured transformational leadership to transactional leadership (Ali et al., 2013).

Bateh and Heyliger (2014) found that faculty members who perceived administrators' leadership style to be transformational increased job satisfaction. Additionally, administrators who were viewed as transactional leaders also increased job satisfaction of faculty members. Laissez-faire leadership amongst administrators had a decreasing effect on faculty members' job satisfaction (Bateh & Heyliger, 2014).

The results indicate that administrators who communicate the expectancy of job satisfaction within faculties and assist faculty leaders in the implementation of leadership models that are deemed effective, may enhance job satisfaction of faculty leaders (Bateh & Heyliger, 2014; Ghorbanian et al., 2012).

## **2.3 Work stress**

### **2.3.1 Conceptual definition of work stress**

Stress in its broadest definition is defined as physical and psychological responses to the overexertion of the individuals' capability to adapt to adverse mental and/or physical conditions (Babatunde, 2013; Shahsavarani, Azad Marz Abadi, & Hakimi Kalkhoran, 2015).

Bamber (2013) defines stress as experienced by an individual when appraisal of resources, that allow for coping, is not sufficient to cope with demanding situation that they face. Bowen et al. (2014) define work stress as physically and emotionally negative responses (strain and effect), which arise due to the non-alignment of abilities, resources, or requirements of employees with what is required from their jobs. For this research, the definition of Bowen et al. (2014) will be utilised.

### **2.3.2 Antecedents of work stress**

Various studies and literature reviews have identified the antecedents that contribute towards work stress (Babatunde, 2013; Banerjee & Mehta, 2016; Mohajan, 2012; Mosadeghrad, 2014; Usman et al., 2011).

*Work overload*, also known as excessive job demands, has been shown to be a precursor to work stress (Karimi et al., 2013). Studies amongst nurses have found a significant positive correlation between work overload and work stress (Karimi et al., 2013). This indicates that nurses who work additional and extended shifts, while also working with dying patients or patients with more injuries may be contributing factors to increased work stress (Karimi et al., 2013).

**Time pressure** has been shown to influence work stress amongst employees (ALQahtani et al., 2018; ALQahtani et al., 2020; Mosadeghrad, 2014; Prasad et al., 2020). ALQahtani et al. (2020) found that time pressure influences perceived stress levels. Another study by ALQahtani et al. (2018) found that time pressure influences physicians' diagnostic accuracy and increases their levels of perceived stress. Prasad et al. (2020) indicate that time pressures have a direct, albeit a small to moderate, effect on stress levels of clinicians. Tyrkkö and Karlqvist (2015) indicated that time pressure positively correlates to clinicians' stress levels.

Research indicates **role ambiguity** can be defined as the unclarity regarding employee understanding, responsibility and objectives of a specific job task and what is expected of the task (Karimi et al., 2014; Rizwan, Waseem, & Bukhari, 2014). Research indicates that role ambiguity not only correlates positively with job stress but also effects work-family conflicts (Soltani et al., 2013). The study found that work-family life conflict which came about as a result of role ambiguity is not managed effectively, the resulting job stress can result in significantly reduced performance (Soltani et al., 2013).

When an employee is conflicted about what is expected regarding their job, job role and/or role overload opposes other job expectations (Lambrechts Van Zyl, 2013; Kavosi, 2018; Parayitam 2020; Soltani et al., 2013). Studies have shown a positive correlation between **role conflict** and job stress (Kavosi et al., 2018; Jin et al., 2018; Misis et al, 2013; Sheraz et al, 2014).

**Leadership** has been shown to influence stress levels of employees (Elçi et al., 2012; Lambersky, 2016; Lopez et al., 2011; Sherman et al., 2012). Leadership, by its very nature, does not necessarily imply higher levels of stress (Sherman et al., 2012).

Sherman et al. (2012) found that leaders who possess sufficient psychological resources have low levels of stress. Additionally, ethical leadership and leadership effectiveness has been shown to decrease employee stress levels (Elçi et al., 2012).

Alternatively, leaders who wanted higher levels of production increased the emotional exhaustion of employees (Lopez et al., 2011). Lambersky (2016) found that principals can influence teachers' emotional states positively and negatively.

Dark leadership has been found to positively correlate to occupational stress levels of employee (Saleh et al., 2018). Dark leadership can be viewed as the behaviour of leaders that results in harm to team members (Saleh et al., 2018).

### **2.3.3 Outcomes of work stress**

Job stress has been shown to correlate to various outcomes (Ahn & Chaoyu, 2019; Applebaum et al., 2010; Doerr et al., 2015; Lee & Jang, 2020; Seok et al., 2015). Seok et al. (2015) found a positive correlation between job stress and *fatigue*. Lee and Jang (2020) and Doerr et al. (2015) found that job stress significantly impacts fatigue levels.

Lee and Jang (2020) found that job stress directly correlates to *turnover intention*. Similarly, Yin-Fah et al. (2010) and others (Ahn & Chaoyu, 2019) also found a significant relationship between job stress and turnover intention.

Applebaum et al. (2010) found that perceived stress directly correlates with *job satisfaction* amongst nurses. Chao et al. (2015) found a negative correlation between stress and job satisfaction (with *locus of control* as a mediating factor). This indicates

that nurses with an external locus of control experience higher negative effects of stress on their job satisfaction.

Studies have found a correlation between job stress and *cardiovascular disease* (Kaewboonchoo, Sembajwe, & Li, 2018; Sara et al., 2018; Wilson, Conroy, & Dorevitch, 2014). Work stress has been shown to affect arterial stiffness (Kaewboonchoo et al., 2018).

Clark et al. (2011) found that employees with high stress levels reported higher levels of *blood pressure*. Blood pressure is defined as the force exerted by flowing blood against the interior of blood vessels (Mucci et al., 2016). Occupational stress has been linked to increased *musculoskeletal disorders* (Chakraborty et al., 2018). Pain in employees' backs, shoulders and wrists has been significantly linked to stress levels of office workers (Ansari et al., 2016).

Job stress has been found to influence *hormonal levels* of employees (Al-Sayed et al., 2016; Contrada & Baum, 2010). Nakajima et al. (2012) studied the cortisol levels of emergency care technicians and found that cortisol levels may be reflective of stress and recovery responses due to higher job stress and sleep deprivation.

Job stress has been shown to negatively impact *mental health* of employees (Abarghouei et al., 2016; Almojali et al., 2017; Hassan, & Husain, 2020; Inoue et al., 2016; Lin et al., 2014).

Lin et al. (2014) found that nurses who work night shifts and who have higher levels of stress also had *poor sleep quality*. Similarly, Deng, Liu and Fang (2020) found that nurses with high levels of stress had reduced quality of sleep. Furthermore, the study found that sleep quality influenced doctor-patient relationships, promotion and pressure at work (Deng et al., 2020).

Abarghouei et al. (2016) found a significant correlation between nurses' job stress and *emotional exhaustion*. Furthermore, emotional exhaustion decreases the emotional and psychological influence an individual can exert to such an extent that it results in apathy towards work and customers (Abarghouei et al., 2016).

Work stress has been shown to be correlated to *depression* (Inoue et al., 2016; Kim, Lee, & Choi 2015). Additionally, depression was found to be associated with higher job demands and lower social support at work (Inoue et al., 2016). Factors such as unsuitable work environments, lack of safety, intolerable physical work environment and inability to handle work stress can contribute to stress levels and depressive states (Firoozichahak et al., 2015).

Regarding *anxiety*, available literature indicates a correlation between work stress and increased levels of anxiety (Hassan & Husain, 2020; Khodarahimi & Nikpourian, 2012; Thorsteinsson, Brown, & Richards, 2014). Thorsteinsson et al. (2014) found that stress was correlated to decreased staff health (anxiety). These factors include origin of work pressure, locus of control, emotional and physical distress and being dissatisfied with work (Hassan & Husain, 2020).

### **2.3.4 Theories of work stress**

#### **2.3.4.1 Conservation of Resources Theory**

Conservation of Resources Theory (COR Theory) is basically a theory of motivation; this implies that protecting available resources (conservation) and acquiring new resources (acquisition) motivate human beings (Cooper & Quick, 2017; Halbesleben et al., 2014). For people to effectively regulate their 'self', behaviour, and their fit into organisations and cultural contexts, they require the employment of resources.

Being healthy, peaceful, preserving self and positivity related to the self, are universal to the COR Theory (Hobfoll, 2011). When individuals are unable to cope with enhanced job demands and depleted resources, it can invoke stress (Hobfoll, 1989).

Hobfoll (1989) identifies four main resources: object resources, conditions, personal characteristics, and energy. Object resources are defined as resources that are physical or dependent on how rare or costly they are; these include housing (house) or transportation (car) (Alarcon, Edwards, & Menke, 2011). Conditions are resources to the extent that they are wanted or required. Conditions can be viewed as receiving societal support such as help from family, friends, or co-workers (Alarcon et al., 2011). Personal characteristics assist the individual in dealing with stress; these are characteristics such as being conscientious (Alarcon et al., 2011). Energy allows the individual to gain further resources. Money can be viewed as an energy due to the fact that it does not have any inherent value; however, it can be used to acquire other resources such as housing or transportation (Alarcon et al., 2011).

Hobfoll (2011) identifies the principles of (1) primacy of resource loss, (2) resource investment, (3) resource gain cycle and (4) resource loss cycle. Primacy as resource loss is deemed to have more negative implications psychologically when losing individual resources as compared to the helpfulness of regaining the resources that they have lost (Halbesleben et al., 2014; Hobfoll, 1989; Hobfoll, 2011).

The first principle is the primacy of resource loss—the idea that it is psychologically more harmful for individuals to lose resources than it is helpful for them to gain the resources that they lost. Secondly, investment of resource is viewed as the action of reinvesting available resources to aid in the prevention of resource loss, recovering of



losses and regaining of resources (Hobfoll, 2011). The third and fourth principles are concerned with gain or loss spirals. Loss spirals occur when conditions within the environment are habitually stressful or when resources are not available or sufficient. These spirals gain momentum when resources are lost or gained which assist people in facing challenges (Hobfoll, 2011). A representation of the COR Theory is presented in figure 2.

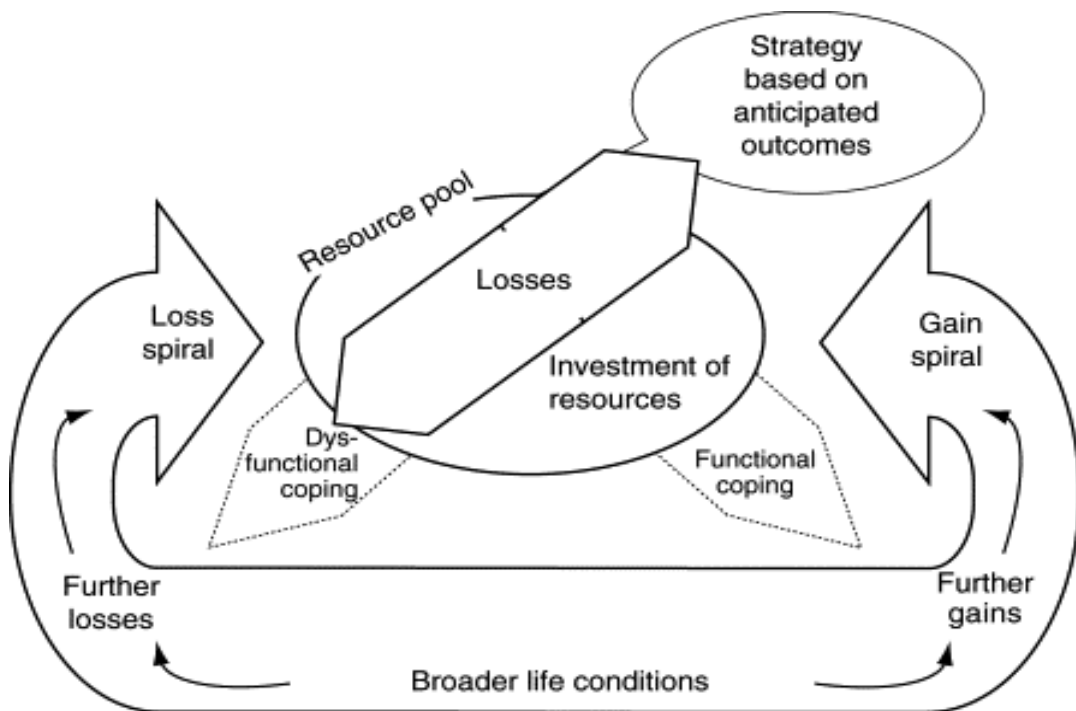


Figure 2

*Process of resource conservation* (Source: Buchwald & Schwarzer in Peterson, Baker, & McGaw 2010).

### 2.3.5 Model of work stress

#### 2.3.5.1 Job Demands-Resource-Control Model of job stress

The adapted Job Demands-Resource-Control Model of stress (Figure 3) is an adapted version of the Job Demands-Support-Control Model (Ariza-Montes et al, 2018),

Karasek's Model for the Description of Workplace (Karasek & Theorell, 1990) and the Job Demand-Resource Theory (Bakker & Demerouti, 2014).

The Job Demands-Control (Support) (JDC/JDCS) Model explains the mental strain that occurs within the workplace (Häusser et al., 2010). The model was originally developed by Robert Karasek, and it identifies job traits that negatively impact the health and well-being of employees (Häusser et al., 2010). The model postulates that negative impacts at work are bi-dimensional which occurs within job demands and job control (Häusser et al., 2010). Particular personal conflicts and performing unexpected tasks (work overload) are viewed as psychological stressors form part of job demands (Ariza-Montes et al., 2018). The degree to which employees have the authorisation to make choices and the utilisation of their skills is viewed as job control also known as decision latitude; this encompasses the extent to which employees have control of personal initiative and utilisation of their personal capabilities (Ariza-Montes et al., 2018). Furthermore, productive and constructive relationships with superiors and colleagues are viewed as social support (Ariza-Montes et al., 2018; Dawson, O'Brien, & Beehr, 2016).

The JDRC Model proposes that three appraisals take place when the individual is presented with a job or task. The first appraisal determines the demand(s) that form part of the specific task or job. The second appraisal determines if the individual has sufficient control over the job or task and if there are enough job and personal resources at the disposal of the individual. During the second appraisal and outcome appraisal the individual attempts to attend to the specific task. Task outcome is the final appraisal phase or outcome appraisal. This phase allows for the evaluation of the process of task completion. The result of this appraisal results in the evaluation of the psychological and physical state of the individual. These states can either be

passive (boredom), low strain, active strain, or high strain. If the individual does have sufficient control of their task and high job demands (as per Karasek's model), and sufficient job and/or personal resources (as per Bakker & Demerouti's Job Demand-Resource Theory) are available, then it is proposed that the individual is actively involved the process of task completion and the individual will experience psychological and physical well-being. However, if job control is high and job demands are low, the result would be low strain or boredom. The individual will start experiencing strain when there is no, or limited control of a task and the job demands are high. This would put the individual at high psychological and/or physical risk. Of importance is that job crafting is conducted throughout the entire process and throughout each appraisal as can be seen in the graphical representation in Figure 3.

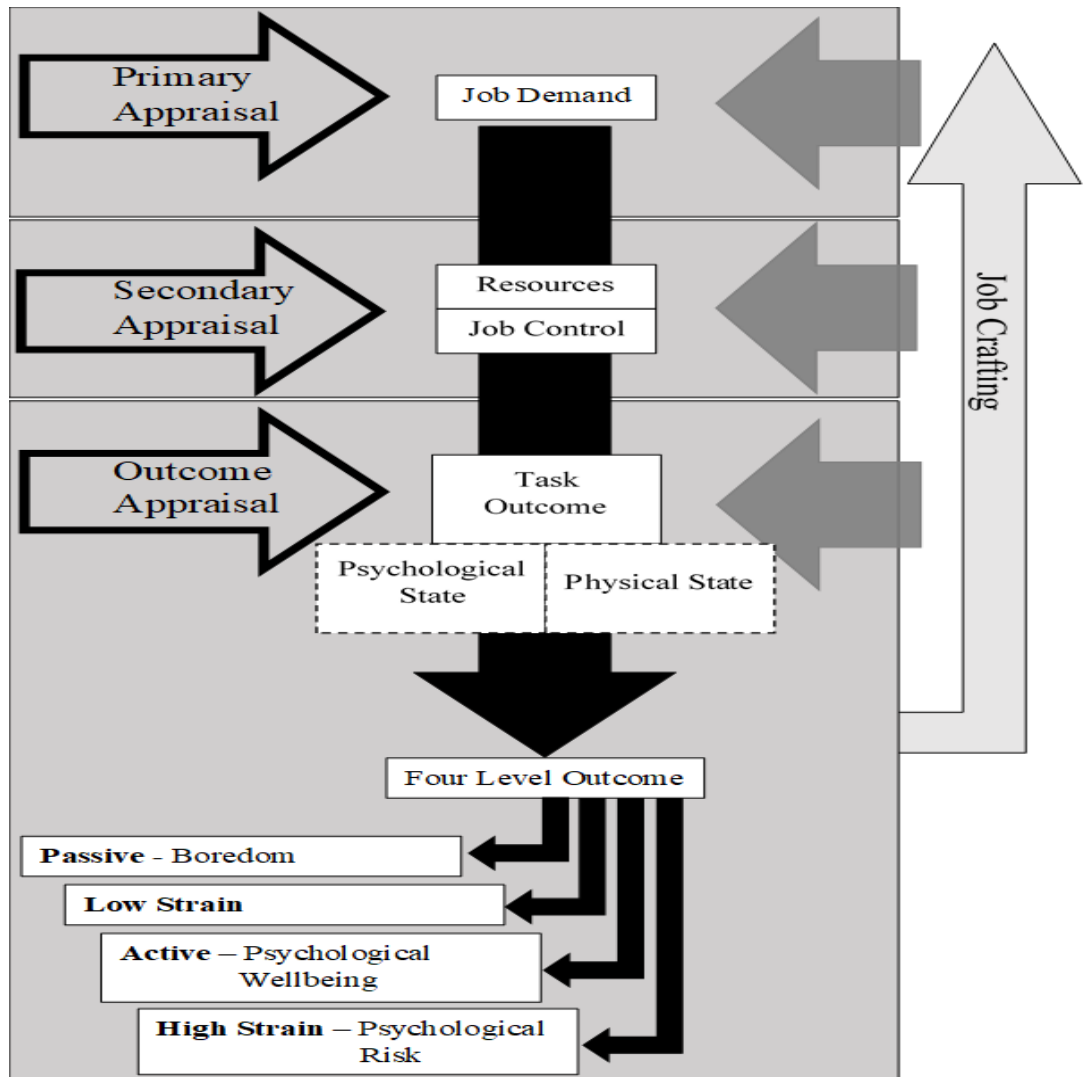
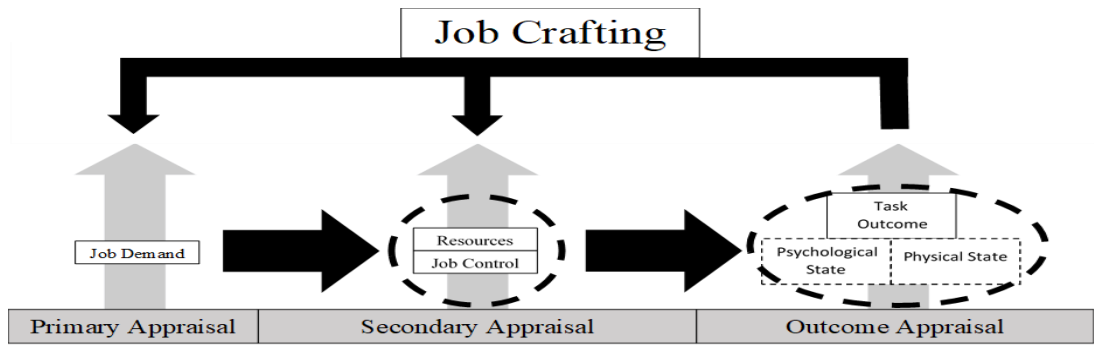


Figure 3 The Job Demand-Resource-Control Model

(Source: The Job Demands-Support-Control Model from Ariza-Montes et al., 2018; Karasek's Model for the Description of Workplace from Karasek and Theorell, 1990; Job Demand-Resource Theory, Bakker and Demerouti, 2014).

### **2.3.6 Relationship between work stress and job satisfaction**

Correlations have been found between work stress and job satisfaction (Applebaum et al., 2010; De Simone, Cicotto & Lampis, 2016; Griffin et al., 2010; Said & El-Shafei, 2021). Similarly, Griffin et al. (2010) found that job satisfaction reduced occupational burnout, implying that job satisfaction reduces stress, and therefore, reduces occurrences of occupational burnout (Griffin et al., 2010). De Simone et al. (2010) also found that high levels of stress amongst teachers also reduce their satisfaction with their jobs.

## **2.4 Job satisfaction**

### **2.4.1 Conceptual definition of job satisfaction**

Available literature indicates that there is no agreed-upon definition for job satisfaction and differs dependent on the individual investigating job satisfaction and the variables studied (Demirtas, 2010; Gkolia, Belias, & Koustelios, 2014; Ravari et al., 2012).

Spector (1997) has identified three main aspects that constitute job satisfaction. Firstly, the achievement of job satisfaction within the organisation should be directed by human values such as being treated fairly and respectfully. Furthermore, job satisfaction may also be indicative of healthy emotional and mental states of workers. Secondly, employees' behaviour is a result of their job satisfaction which influences the operations, functions, and activities of the organisation (Spector, 1997). Additionally, this implies that employees' job satisfaction can result in positive behaviours, and job dissatisfaction can lead to negative behaviours of employees.

Thirdly, job satisfaction can be used as a determinant and can be indicative of the successfulness of organisations (Spector, 1997).

The most cited source for defining job satisfaction is by Locke (1976) who states that job satisfaction is a result of the appraisal of job experiences which are perceived as emotionally positive and pleasing (Demirtas, 2010; Zhu, 2013). Belias and Koustelios (2014) state that job satisfaction influences various aspects of the behaviour of employees, their levels of performance and their daily lives.

As per the mentioned definitions of job satisfaction (Belias & Koustelios, 2014; Locke, 1976), this study defines job satisfaction as the emotional and physical perception of work-related factors which result in either a positive or negative appraisal and the exhibition or experiences of these factors at a psychological, emotional, or physical level.

#### **2.4.2 Antecedents of job satisfaction**

Various factors have been shown to influence job satisfaction of employees (Ali et al., 2014; Ali & Ahmed, 2017; Card et al., 2012; Judge et al., 2010; Malik, Danish, & Munir 2012; Ozturk, Hancer, & Im, 2014). The antecedents discussed are job characteristics, remuneration, promotion, supervision, co-workers, and the nature of work.

Ozturk et al. (2014) found that *job characteristics* such as feedback, autonomy, and interaction amongst employees affect job satisfaction. Blanz (2017) indicated that job characteristics correlated positively and significantly with job satisfaction. Furthermore, the study also found that psychological states showed significantly

positive correlations with job satisfaction. Additionally, psychological states showed higher correlation with job satisfaction than job characteristics (Blanz, 2017).

Regarding *pay*, results of studies are inconclusive. Malik et al. (2012) found that pay is significantly correlated to job satisfaction amongst employees within higher education institutes. Card et al. (2012) found that the job satisfaction of employees is directly influenced by employees having comparable knowledge regarding their colleague's remuneration. Ali and Ahmad (2017) found that remuneration is significantly correlated to job satisfaction (Ali & Ahmed, 2017).

Noor, Khanl, and Naseem (2015) investigated the influence of job *promotion* and job advancement on job satisfaction. The research found that positive correlation exists between the dimensions of job promotion, job advancement and job satisfaction (Noor et al., 2015). Additionally, Malik et al., (2012) found that job promotion is partially correlated to the level of job satisfaction of employees.

*Supervision*, especially abusive supervision, has been shown to have detrimental effects on the job satisfaction of employees (Ahmad, Khattak, & Ahmad 2016; Peltokorpi & Ramaswami, 2021). Mathieu and Babiak (2016) investigated the influence of corporate psychopathy and abusive supervision on job satisfaction. The study found that corporate psychopathy positively correlated to abusive supervision.

Javeria et al. (2013) investigated the influence of *co-worker relationships* and employee job satisfaction. The study found that co-worker relationship and job satisfaction show a significant positive relationship.

*Nature of work* has been shown to influence job satisfaction (Lumley et al., 2011; Alshitri, 2013). A study conducted by Lumley et al. (2011) found that there exists a significant positive relationship between nature of work and employee job

satisfaction. The correlation between nature of work and job satisfaction shows that employees find value in the work that they do and the significance they place in their work even when they are unhappy (Rosales, Labrague, & Rosales, 2013).

### **2.4.3 Outcomes of job satisfaction**

Job satisfaction of employees has been shown to result in various outcomes for both the individual and the organisation (Applebaum et al., 2010; Aydogdu & Asikgil, 2011; Böckerman & Ilmakunnas, 2012; Faragher, Cass, & Cooper, 2013; Hoboubi et al., 2017; Ioannou et al., 2015; Nadinloyi, Sadeghi, & Hajloo, 2013). Job satisfaction influences outcomes such as absenteeism and intention to leave, employee productivity and employee health.

Job satisfaction of employees influences the *absenteeism and intention to leave* the organisation (Applebaum et al., 2010; Aydogdu & Asikgil, 2011). MacCarthy (2014) states that absenteeism can be defined as the consistent avoidance of work or being deliberately absent from work (i.e., during strike actions). Furthermore, Joseph (2015) defines absenteeism as the result of employee dissatisfaction with work that directly leads to being absent from their place of employment. The study shows that decreasing levels of job satisfaction may lead to increased levels of turnover intention (Aydogdu & Asikgil 2011).

Job satisfaction has been shown to have a positive relationship with *employee productivity* (Hoboubi et al., 2017). In the study conducted by Hoboubi et al. (2017), the results indicates an association between supervision (dimension of job satisfaction) and productivity. This means that increased supervisory support influences job satisfaction positively (Hoboubi et al., 2017). A study conducted by



Böckerman and Ilmakunnas (2012) found that an increase of job satisfaction by one standard deviation increased productivity by 6.6%.

Job satisfaction has been linked to *employee health* (Faragher et al., 2013; Ioannou et al., 2015, Nadinloyi et al., 2013). In a meta-analysis, Faragher et al. (2013) found that there is a strong and significant relationship between job satisfaction and health (mental and physical). Job satisfaction has been shown to influence the mental health of nurses; additionally, studies have shown that job satisfaction influences levels of energy, low levels of vitality and increased physical pain (Ioannou et al., 2015). Furthermore, employees' dissatisfaction with their job has been shown to influence their mental health (Nadinloyi et al., 2013).

#### **2.4.4 Theories of job satisfaction**

##### **2.4.4.1 Two-Factor Theory**

The Two-Factor Theory developed by Herzberg et al. (1959) postulates that different factors influence employee satisfaction and dissatisfaction at work. Herzberg states that job satisfaction and dissatisfaction cannot be measured on the same continuum but on a two-continuum model (Khanna, 2017; Stello; 2011). This implies that different factors influence job satisfaction and job dissatisfaction which constitutes the main premise of the Two-Factor Theory (Alshmemri, Shahwan-Akl, & Maude, 2017; Khanna, 2017; Stello, 2011).

Table 2

*Two-Factor Theory summary* (Source: Alshmemri et al., 2017)

<b>Theory</b>	
Motivation Factors	Hygiene Factors
Advancement	Interpersonal relationship
Work itself	Salary
Possibility of growth	Policies and administration
Responsibility	Supervision
Recognition	Working conditions
Achievement	

The Two-Factor Theory is closely related to Maslow’s hierarchy of needs; however, Herzberg relates his theory towards how individuals are motivated at work (Ghazi, Shahzada, & Khan, 2013). Additionally, Herzberg identifies that needs - similar to Maslow – are classified into lower-level needs and higher-level needs. Lower-level needs do not motivate individuals to employ extra effort; however, meeting these needs counteracts employee dissatisfaction. Employee motivation only occurs when higher-level needs are achieved and met (Ghazi et al., 2013).

These factors are also known as motivators (higher-level needs) and hygiene factors (lower-level needs) (Alfayad & Arif, 2017). Motivators identify specific facets of work that offer employees feelings of contentedness and satisfaction. Alternatively, hygiene factors identify specific aspects of work which buffer employees from unhappiness or dissatisfaction (Alfayad & Arif, 2017).

Motivators are listed as: growth and development opportunities, receiving recognition and achievement (Khanna, 2017). Hygiene factors are listed as: management supervision; interpersonal relationships; conditions at work; remuneration; policies of organisations and occupational security (Khanna, 2017; Stello, 2011). Motivating factors are viewed as intrinsic factors, while hygiene

factors are viewed as extrinsic factors; motivators influence the satisfaction, and hygiene factors influence the dissatisfaction of employees (Khanna, 2017). A diagrammatic representation of the two-factor theory is represented in figure 4.

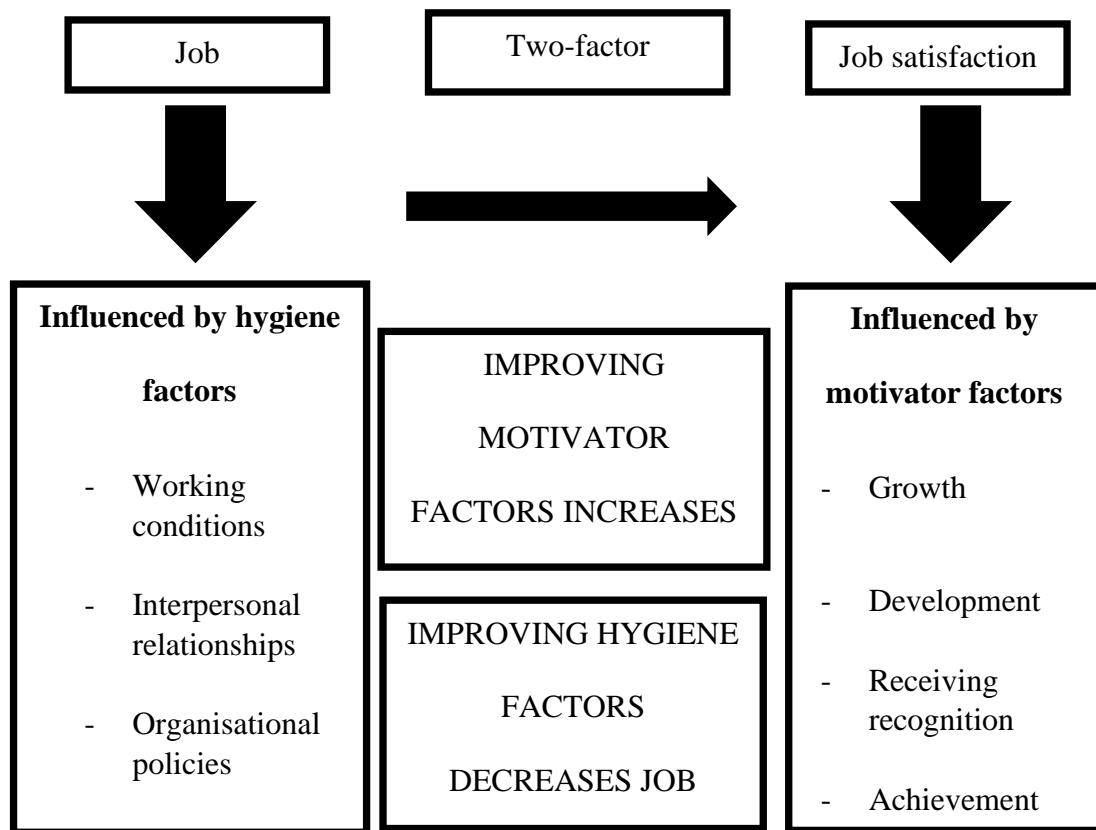


Figure 4

*Two-factor theory* (Source: Ilić & Stojanovic, 2018).

## 2.4.5 Model related to job satisfaction

### 2.4.5.1 Job Characteristics Model

The Job Characteristics Model developed in 1976 by Hackman and Oldham (1980) focuses on five job characteristics that generate critically significant psychological states for the employee which in turn bring about work outcomes which are positive

(Morgeson, Garza, & Campion 2013). A diagrammatic representation of the job characteristics model can be viewed in figure 5.

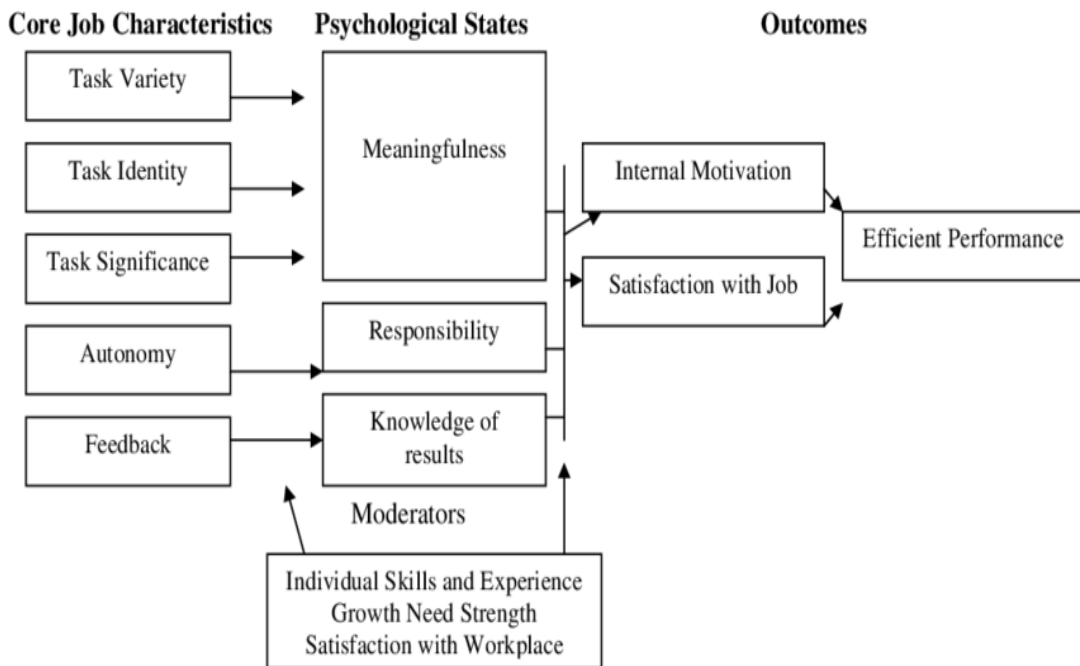


Figure 5

*Hackman and Oldham's Job Characteristics Model (1980)*

Ali et al. (2014) lists five core job characteristics or dimensions identified by Hackman and Oldham (1974) which are: task variety; task identity; task significance; autonomy and feedback. Task variety is the extent to which employees are required to execute various and wide-ranging tasks within their job (Dalal, 2013; Morgeson et al., 2013). Task identity is termed as the extent to which a task or job forms an entire piece of work which in turn can be easily identifiable. Furthermore, task identity involves the degree or extent to which a worker has responsibility for important and complete parts of their work (Dalal, 2013; Morgeson et al., 2013). Task significance is viewed as the level to which work is viewed as important to others within and outside the organisation and the influence the work has on others inside or outside the organisation (Dalal, 2013; Morgeson et al., 2013). Autonomy is defined as the

extent to which employees are free and independent to determine their own work schedules and processes on the job (Dalal, 2013; Hackman & Oldham, 1974; Morgeson et al., 2013). Furthermore, Gagné and Bhave (2011) state that autonomy within the self-determination theory construct must be met or satisfied to attain optimal functioning. Feedback is defined as the level to which information and knowledge is provided to the employee regarding the results of work done (Dalal, 2013; Morgeson et al., 2013).

The five job characteristics are viewed to contribute to psychological states i.e., meaningfulness, responsibility, and knowledge of results (Blanz, 2017; Kass et al., 2011). Skill variety, task identity and task significance are combined to produce the critical psychological state of meaningfulness experience at work, while autonomy produces responsibility or control and feedback produces knowledge as a result of work effort (Blanz, 2017; Kass et al., 2011). As per Kass et al. (2011), these psychological states influence motivation and job satisfaction which in turn results in efficient performance. In essence, the psychological states mediate core job characteristics and the subsequent job outcomes (Park, 2017).

## **2.5 Work engagement**

### **2.5.1 Conceptual definition of work engagement**

Distinguishing between work engagement and employee engagement is important when attempting to conceptualise the specific phenomena (Schaufeli & Salanova, 2011). As stated by these authors, work engagement encapsulates the connection that the employee has with his or her work. Schaufeli (2013) distinguishes between work engagement and employee engagement by identifying work engagement – similarly

to Schaufeli and Salanova (2011) – as the relationship the individual has with their work. Alternatively, the authors identify that employee engagement can also include the relationship the individual has with the organisation. For the purpose of this study, this definition of work engagement is used due to its specificity.

Work engagement is defined as a continuous, prevalent, and motivating cognitive condition that is work-oriented which is categorised by vigour, dedication, and absorption (Bakker & Schaufeli, 2015). It must be noted that some researchers regard vigour and dedication as the main factors of work engagement, whereas absorption is deemed an outcome (Bakker et al., 2011; Schaufeli, 2013; Taris et al., 2017). Bakker (2011) describes vigour as elevated levels of physical and mental energy characterised by mental strength while working (Schaufeli et. al., 2002). Dedication is defined as the individual being involved with their work while the experience of the task or challenge is perceived enthusiastically and significantly. Furthermore, absorption should be investigated to determine if it is a dimension or a product of work engagement (Bakker et. al., 2011; Janero et al., 2011). As per the abovementioned definitions, work engagement will be defined as the committed and optimistic individual involvement in an extended and pleasurable work state which is characterised by vigour (affect), dedication (motivation) and absorption (cognition).

### **2.5.2 Antecedents of work engagement**

Job resources, personal resources and job demands have been shown to be precursors to work engagement (Roczniewska & Bakker, 2016; Schaufeli & Bakker, 2004; Xanthopoulou; 2009).

**Job resources** are defined as physical, psychological, social, or organisational job facets. These constructs reduce the demands of the job and the implicit physiological and psychological strain (Bakker, 2011; Bakker & Demerouti, 2008). The level of work engagement is predicated by personal and job resources (Schaufeli, 2012).

**Task autonomy** allows the individual to freely make decisions related to their work and at their own discretion (Chang, Huang, & Choi, 2012). Vera et al. (2016), who studied Portuguese nurses, found that job autonomy has a direct effect on the engagement of nurses.

**Social support**, as defined by Gottlieb and Bergen (2010), is described as the supportive backing provided to individuals from formal and informal relationships during their day-to-day lives. Nasurdin, Ling, and Khan (2018) found that all three forms of social support (perceived organisational support; perceived supervisory support; perceived peer support) positively correlate to work engagement.

Hobfoll et al. (2003) view **personal resources** as characteristics of the individual that can influence the external environment when challenged. A study on construction workers by Lorente et al. (2014) found that personal resources have a predictive function in relation to how individuals perceive job resources.

**Self-efficacy**, resilience and optimism have been shown to significantly influence work engagement (Simbula, Guglielmi, & Schaufeli, 2011). Research indicates that, as an antecedent, self-efficacy is positively related to work engagement (Federici & Skaalvik, 2011). Furthermore, self-efficacy has been shown to have predictive value related to job satisfaction, well-being, goal setting and motivation (Federici & Skaalvik, 2011).

**Resilience** is defined as the capability to persevere when faced with changes and continued development within changing situations (Folke, 2016). Resilience has been showed to positively correlate to work engagement due to employees' satisfaction with their jobs (Kašpárková et al., 2018). Dai, Zhuang, and Huan (2019) found that resilience amongst employees reduced intentions to quit their jobs and enhanced work engagement. Similarly, Chhajer, Rose, and Joseph (2018) found that high levels of resilience and optimism predicted increased levels of engagement, cognitively, emotionally and physically.

**Optimism** is defined as the positive expectancy regarding future events when an individual experiences change (Chhajer et al., 2018). Optimism has been shown to be a personal factor that contributes positively to the enhancement of work engagement amongst nurses (Gözükara & Simsek, 2016).

Laguna, Razmus, and Żaliński (2017) conducted a longitudinal study on entrepreneurs and found that there is a reciprocal relationship between personal resources and work engagement. Furthermore, **enthusiasm** predicts self-efficacy; in other words, employees who present positive affectations, like enthusiasm, present higher levels of self-efficacy.

Various job demands effect work engagement; these are demands such as role ambiguity, role conflict, role stress, stressful events, workload, and work pressure.

**Role ambiguity** takes place when the employee is uncertain as to what their role is within the organisation, the expectations of the role and to what end information is available to complete the necessary tasks required within the role (Smith, 2011; Tarrant & Sabo 2010).



**Workload** is defined as the perception of pressure due to high work and task load, or in other words, being totally overburdened with work (Bruggen, 2015). Tomic and Tomic (2011) conducted research involving 278 hospital nurses and found that high levels of workload negatively impacted engagement, i.e., high levels of workload produced lower levels of dedication and vigour.

Van Mol et al. (2018) found that nurses who work in intensive care units and who are agreeable, conscientious, and emotionally stable were showed higher levels of work engagement. Furthermore, these features allow the individuals to apply most suitable strategies and coping mechanisms to manage workplace stressors.

### **2.5.3 Outcomes of work engagement**

Innanen, Tolvanen, and Salmela-Aro (2014) studied subjective well-being amongst well educated employees. The longitudinal study divided subjective well-being into two separate profiles i.e., engaged and exhausted-workaholic. Innamen et al. (2014) found psychological detachment, relaxation, and life satisfaction as distinctive outcomes of engaged employees.

Clark et al. (2014) investigated the impact of workaholism on work engagement. The results indicated that work engagement enhances work-to-home enrichment. Similarly, Hakanen and Peeters (2015) conducted a longitudinal study which investigated the relationship between work engagement, workaholism and work-to-family enrichment. The results indicated that work engagement is positively correlated to happier home lives.

Sohrabizadeh and Sayfour (2014) determined that work engagement amongst nurses has a positive effect on job satisfaction and organisational citizenship behaviour and negatively correlates to employees' intentions to quit the job.

Field and Buitendach (2011) found that engagement has predictive value regarding organisational commitment. Additionally, Geldenhuys, Laba and Venter (2014) found similar results in their research which identified that work engagement has predictive value in relation to organisational commitment.

Available literature indicates that work engagement is positively correlated to task performance, contextual performance and active learning (Bakker, Demerouti, & Lieke, 2012). This has been shown to be significant for highly conscientious employees (Bakker et al., 2012).

Christian, Garza, and Slaughter (2011) found that engaged employees are likely to conduct extra-role behaviours; this is likely because of the availability of resources due to the efficient completion of tasks and goals.

Furthermore, work engagement positively correlates with life satisfaction (Upadyaya, Vartiainen, & Salmela-Aro, 2016). Similarly, Shimazu et al. (2015) found that work engagement increased job performance and decreased ill-health in employees. Research has shown that work engagement negatively correlates and has predictive value in relation to turnover intentions of staff (Bothma & Roodt, 2012; Du Plooy & Roodt, 2010; Takawira, Coetzee, & Schreuder, 2014).

## 2.5.4 Theories related to work engagement

### 2.5.4.1 The Broaden-and-Build Theory

The Broaden-and-Build Theory and the Job Demands-Resource (JD-R) Theory are deemed to be suitable theories related to the investigation of work engagement. The Broaden-and-Build Theory of positive emotions was first conceptualised by Barbara Lee Fredrickson (1998) (Fredrickson, 2013) (Figure 6). Fredrickson postulates that positive emotions form an important part of the human existence (Fredrickson, 2001; Fredrickson, 2013).

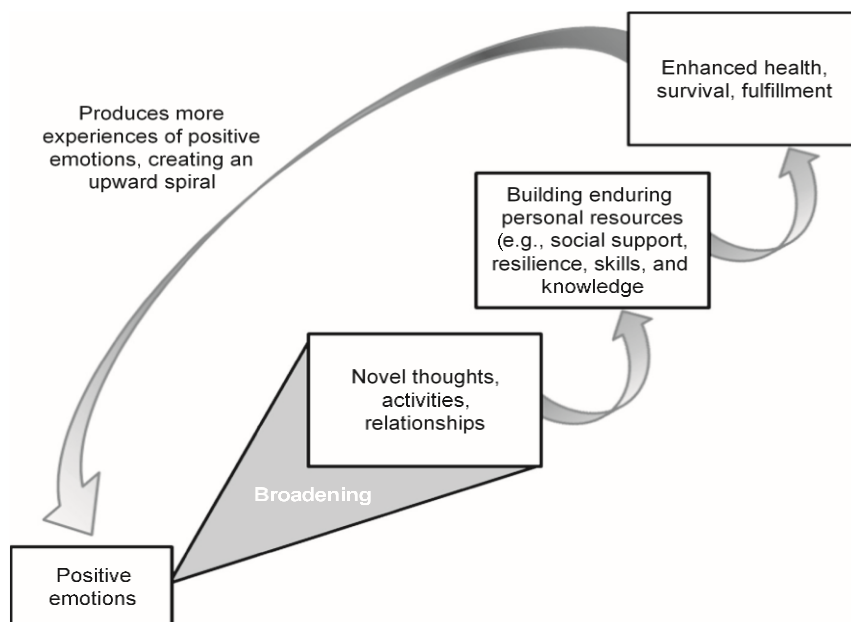


Figure 6

*The Broaden-and-Build Theory* (Source: Fredrickson, 1998)

Fredrickson (1998) states that these positive emotions (Table 3) enhance thought-action collectives. These collectives build on existing personal resources i.e., physically, intellectually, socially and psychologically.

Table 3

*Ten representative positive emotions* (Source: Fredrickson, 2013)

<b>Emotion Label</b>	<b>Appraisal Theme</b>	<b>Action Tendency</b>	<b>Resources Accrued</b>	<b>Core Trio</b>
<b>Joy</b>	Safe, familiar unexpectedly good	Play, get involved	Skills gained via experiential learning	Joyful, glad or happy
<b>Gratitude</b>	Receive a gift or benefit	Creative urge to be pro-social	Skills for showing care, loyalty, social bonds	Grateful, appreciative or thankful
<b>Serenity (a.k.a., contentment)</b>	Safe, familiar, low effort	Savour and integrate	New priorities, new views of self	Serene, content or peaceful
<b>Interest</b>	Safe, novel	Explore, learn	Knowledge	Interested, alert or curious
<b>Hope</b>	Fearing the worst, yearning for better	Plan for a better future	Resilience, optimism	Hopeful, optimistic or encouraged
<b>Pride</b>	Socially valued achievement	Dream big	Achievement motivation	Proud, confident or self-assured
<b>Amusement</b>	Non-serious social incongruity	Share joviality, laugh	Social bonds	Amused, fun-loving or silly
<b>Inspiration</b>	Witness human excellence	Strive toward own higher ground	Motivation for personal growth	Inspired, uplifted or elevated

<b>Awe</b>	Encounter beauty or goodness on a grand scale	Absorb and accommodate	New worldviews	Awe, wonder, amazement
<b>Love</b>	Any/all of the above in an interpersonal connection	Any/all of the above, with the above, mutual care especially social bonds	Any/all of the above,	Love, closeness or trust

From this viewpoint, the Broaden-and-Build Theory is rooted in the positive psychology school of thought which asserts that positive emotions promote flourishing (Fredrickson & Losada, 2005; Fredrickson & Kurtz, 2011). Fredrickson (2013) identifies two premises that form the foundation for the Broaden-and-Build Theory. The broaden dimension is hypothesised as positive emotions that expand the cognitions, impulses to act and perceptions that are spontaneous (Fredrickson, 2013). The build component of the theory requires a broadening of consciousness and then consequently building of personal resources such as thoughts, actions and perceptions (Fredrickson, 2013). Fredrickson postulates that from an evolutionary viewpoint, positive emotions beget further positive emotions. This creates an upward spiral that constantly broadens perceptions and builds on gained personal resources, which ultimately leads to increased well-being and fulfilment (Fredrickson, 2013).

David, Boniwell and Ayers, (2014) identify three dimensions that are influenced by the broadening element of Fredrickson's theory i.e., attention, cognition, and social cognition. Fredrickson's theory implies that positive emotions influence cognitions in that positive emotions enhance and expand the breadth of attention (David et al., 2014). With regards to attention, research indicates that positive affect has a direct

influence on attention (Huntsinger, 2013). Furthermore, how one perceives the external environment is influenced by the emotions that are experienced (Huntsinger, 2013). Alternatively, research indicates that negative emotions narrow individuals' attention to the external environment and make individuals more selective to the information that they concentrate on (David et al., 2014).

Resources are enhanced due to the increase of creativity in problem-solving and the acknowledgement of personal resources (Lopez, Pedrotti & Snyder, 2018). Interestingly, Bledow, Rosing and Frese (2013) studied the effects of positive and negative emotions on creativity. By conducting two separate experiments, they found that dynamical interchange between both positive and negative emotions influences creativity in the studied individuals. These results indicate that individuals who shift from negative affect to positive affect (while negativity is decreased) can be highly creative (Bledow et al., 2013). This could be due to negative emotions providing a foundational framework for future creative endeavours (Bledow et al., 2013). This supports Fredrickson's theory in that positive emotions enhance cognitive ability although it also highlights a criticism of the Broaden-and-Build Theory in that negative emotions may play a larger role in creativity than has been previously thought as indicated in the results of Bledow et al., (2013).

Regarding physical and psychological health, Kok and Fredrickson (2010) conducted a study on the relationship between vagal tone (activity of the vagus nerve), positive emotions and social connectedness. The vagal tone is used as an index for autonomic flexibility which indicates the ability of the autonomic nervous system to adjust to environmental changes by regulating arousal, respiration, heart rate and attention (Friedman & Thayer 1998). Kok and Fredrickson (2010) found that vagal tone predicted increases in positive emotions and social connectedness; this in turn

resulted in increased autonomic flexibility. The study indicates that high vagal tone allows for individuals to make quick physical and psychological adjustments that enable individuals to adjust easier to physical, psychological, and environmental changes (Kok & Fredrickson, 2010).

Fredrickson (2013) conducted two independent experiments to validate the assumptions as proposed in the Broaden-and-Build Theory (Fredrickson & Branigan, 2005). Positively, negatively, and neutrally induced psychological states were achieved via short videos that were viewed by participants (Fredrickson & Branigan, 2005). The second study used the same methodology as the first; however, the aim of the second study was to determine the range of the participants' action urges. The second hypothesis focused on the build dimension of the theory proposed by Fredrickson. Botha and Mostert (2014) also assert that these positive emotions, within Broaden-and-Build Theory framework, have a positive influence on work engagement.

The Broaden-and-Build Theory proposed by Fredrickson (2013) however does not account for the advantages of negative emotions as seen in the study by Bledow et al., (2013). Furthermore, due to it being a generalised theorem, it only accounts for the upward spiral of positive emotions. Experimental research conducted does provide causal evidence that supports the proposed theory; however, one must consider that these experiments are conducted within a vacuum, and they are strictly controlled, rarely accounting for the external environment and factors that may contribute to the results (Vacharkulksemsuk & Fredrickson, 2013). Additionally, although Fredrickson (2009) advocates for increased levels of individual well-being via higher levels of positivity, there is a void in the recognition of enhanced

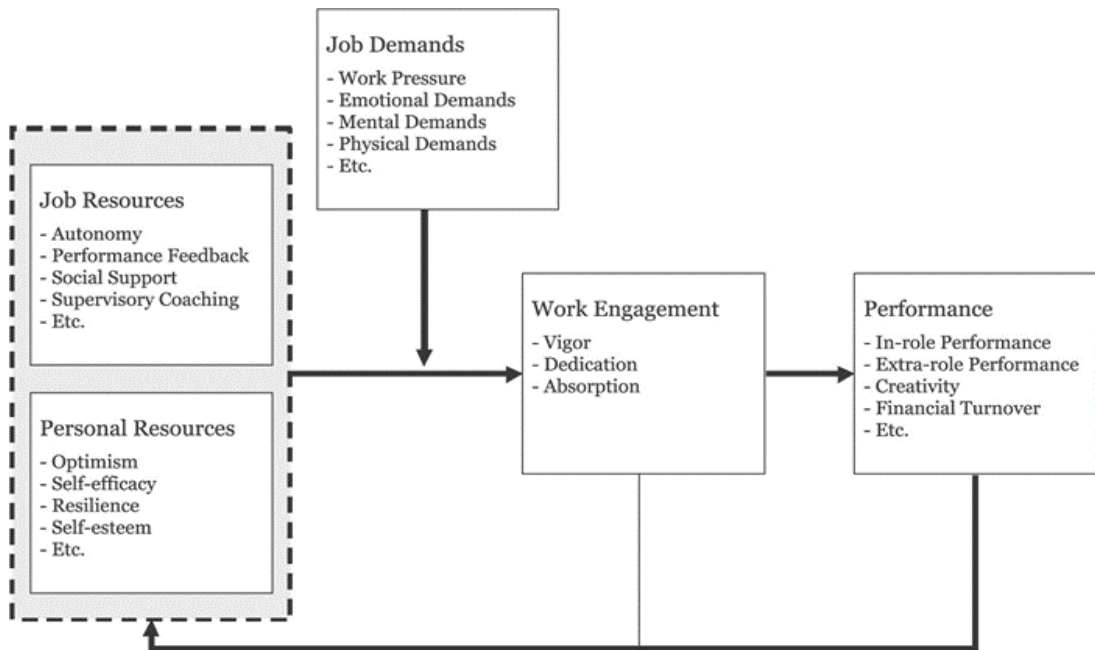
resiliency via negative results, both biologically and psychologically (Frankl, 1992; Liu et al., 2018).

## **2.5.5 Model related to work engagement**

### **2.5.5.1 Work Engagement Model**

Bakker (2011) postulates that the Work Engagement Model consists of job resources such: as support from co-workers and supervisors, feedback on performance, skill variation, and autonomy which initiates the motivational process that directs higher engagement and increases performance (Figure 7) (Keyko et al.,2016). Additionally, engagement is different to motivation in that it includes absorption and vigour. Therefore, work engagement is found to predict work performance better than other early constructs (Bakker, 2011). Job resources encourage intrinsic motivation because motivation assists the employee in growth, learning and developing themselves. Additionally, extrinsic motivation is promoted by a resource-rich work environment as employees are inclined to achieve work-related tasks (Bakker, 2011). Furthermore, job demands such as workload, emotional difficulties and mental demands make job resources more significant, and this increases their motivating capacity. This motivational process is initiated due to the probability that job resources increase employees' satisfaction with their job and level of engagement (Bakker & Demerouti, 2014). Bakker and Demerouti (2008) also found job resources and personal resources to predict work engagement.





**Source:** Based on Bakker & Demerouti (2007)

Figure 7

*The Work Engagement Model* (Source: Bakker & Demerouti, 2007)

### 2.5.6 Relationship between work engagement and leadership

Studies across a wide range of sectors indicate that transactional and transformative leadership have a significant impact on work engagement (Li, Castaño, & Li, 2018; Manning, 2016; Popli & Rizvi, 2016). A study conducted by Li et al. (2018) found that transactional leadership and transformational leadership have predictive value related to work engagement. Manning (2016) focused on the effect of leadership styles on work engagement of nurses, the study also yielded statistically significant support.

Additionally, research supports the positive correlation between transactional leadership, transformational leadership and work engagement and psychological capital (Li et al., 2018). Furthermore, the research indicates that transformational leadership and transactional leadership predict the levels of engagement and

psychological capital of employees, with psychological capital mediating the effects of leadership styles on work engagement (Li et al., 2018). Additionally, transformational leadership impacts work engagement more significantly than transactional leadership (Li et al., 2018; Manning, 2016).

### **2.5.7 Relationship between work engagement and work stress**

Pocnet et al. (2015) conducted a study investigating the relationship between work engagement and work stress. The results indicated that there is a statistically significant relationship between age, nationality, work engagement and work stress. Fiabane et al., (2013) studied the relationship between work engagement and job stress amongst medical professionals. Furthermore, absence of feedback and rewards from patients and organisations also influence physiotherapists' engagement (Fiabane et al., 2013).

In their study, Hetzel-Riggin et al. (2020) found that, amongst nurses, dimensions of work engagement (absorption, dedication, and absorption) mediated the relationship between work stress and levels of burnout. Furthermore, the study found that work stress negatively correlated to daily work engagement. This could be because increased stress limits nurses' personal investment in their jobs while decreasing their determination to complete job tasks (Hetzel-Riggin et al., 2020).

Janero et al. (2011) investigated the effects of vigour and dedication within the nursing profession. They found that occupational role satisfaction; high work-life quality; low levels of social dysfunction and low stress levels predict nurses' levels of vigour and dedication. Ravalier (2018) found that individuals with high levels of engagement had significant lower stress levels. The results indicate that nurses

working within intensive care units acquired the necessary skills that assist them with coping with environmental stresses at work (van Mol et al., 2018). Finally, self-managing situational challenges within intensive care units influences the emotional well-being of nursing staff (van Mol et al., 2018).

### **2.5.8 Work engagement and job satisfaction**

Alarcon and Edwards (2011) found that work engagement was a significant predictor of job satisfaction. Yeh (2013) and others (De Simone, Planta, & Cicotto, 2018; Yan et al., 2017) found that work engagement was positively related to job satisfaction, while high levels of work engagement resulted in increased job satisfaction amongst nursing staff.

Lu et al. (2016) compared engagement levels specific to positions of employment and found that supervising employees are more engaged and have less intent on quitting their jobs. Similar results were found in a study conducted by Van Bogaert et al. (2013) which indicates that all work engagement dimensions positively correlate with job satisfaction among nurses. Abraham (2012) found that job satisfaction is an antecedent to work engagement, while engaged employees and social support acted as antecedents to job satisfaction amongst Portuguese nurses (Orgambídez-Ramos & Borrego-Alés, 2017).

## **2.6 Chapter Summary**

Chapter 2 has shown that leadership styles can enhance employee engagement and job satisfaction, whilst reducing work stress within various sectors of the economy. Chapter 2 identified the dimensions of leadership, work stress, job satisfaction and

work engagement. The chapter also provided definitions and the theories underpinning each dimension. Other theories have also been identified. The chapter showed that there are relationships between leadership styles and the dimensions of work engagement, job satisfaction and work stress.

Chapter 3 will present the research methodology implemented for this study. The chapter will include information about the research objectives, research design and methods, the population, sample size as well as a description of the research instruments. The research procedure, data collection, data analysis methods and research ethics will also be discussed.

## **Chapter 3: Research methodology**

### **3.1 Introduction**

The previous chapter discussed the literature on the presented variables. The methodology chapter focuses on the composition of the study, population groups, the instruments used for measurement, the procedures for the scoring and interpretation of the results and data. Questionnaires were submitted to organisations and institutions where permission was granted. This research made use of quantitative research; the questionnaire consisted of four sections to measure the respective dimensions as stipulated in the study. Participants included various medical professionals within state-run and private healthcare facilities within the Khomas Region, Namibia.

### **3.2 Research objectives**

For this study, the general objective was to determine the relationship between leadership styles, job satisfaction, job stress and work engagement within healthcare institutions. An investigative approach was implemented to establish the respective leadership styles, levels of job satisfaction, work engagement and job stress within the respective healthcare institutions.

#### **3.2.1 Specific empirical objectives**

1. What are the levels of job satisfaction, work engagement and job stress experienced by medical professionals within institutions that provide healthcare to the public?

2. Is there a relationship between leadership styles, job satisfaction, work engagement and job stress?
3. Do the different groups within the sample population (sex, age, number of years in the profession, marital status, number of dependents, highest qualification obtained and position) have different experiences regarding their job satisfaction, work engagement and job stress?

### **3.3 Research design**

This study made use of correlation research within the quantitative design for data collection purposes. Data were obtained via the survey method. Survey research is defined as "the collection of information from a sample of individuals through their responses to questions" (Check & Schutt, 2012, p. 160). The survey method was used due to the low costs involved and its applicability in assessing various large groups of participants. Additionally, a survey can be sent as a link via email or other electronic means such as WhatsApp or SMS. Electronic formats such as WhatsApp have been shown to provide elaborate and interactive responses; this is especially applicable to younger individuals and those who are digitally literate (Chen & Neo, 2019).

### **3.4 Population**

For the purpose of this study, the sample size was aimed at, but not limited to, a total of n=250 within the Khomas Region which consisted of nurses, occupational therapists, physiotherapists and medical practitioners. According to the Health Practitioners Council of Namibia (HPCNA), as of June 2020, there are 10 109

registered nurses and/or midwives, 99 practicing occupational therapists, 155 practicing physical therapists and 1229 medical practitioners within Namibia. Unfortunately, the HPCNA does not specifically store the data of registered professionals according to their region of practice. This study made use of convenience sampling technique which refers to when population components are included in the sample based on the ease of access (Martínez-Mesa et al., 2016). The sample consisted of medical professionals from various sectors within healthcare facilities who play different roles in the treatment and recovery of patients. This allowed for correlation of survey results from different levels of care. Due to the voluntary nature of the study, only some of the approached individuals completed the questionnaire. A total of 250 questionnaires were distributed and 179 returned or collected from participants (72%). The population included male and female medical professionals from private and state healthcare facilities. The participants were selected from various facilities from the Khomas Region via convenience sampling.

### **3.5 Measuring instrument**

In this section of the chapter, the measuring instrument is discussed. This section focuses on the rationale; development; description; administration; scoring; interpretation and the reliability and validity of the measurement instrument for each variable. The survey consists of five sections. The first section assesses respondent's demographic characteristics such as: age; sex; highest qualification obtained; years in the industry; number of dependents; marital status and position as medical professional.

The subsequent sections consist of the *Multifactor Leadership Questionnaire* (MLQ) (Avolio & Bass, 2004); *Role Ambiguity Questionnaire* (Rizzo, House, & Lirtzman, 1970); *Job Demands-Resources Questionnaire* (focusing on workload and job insecurity) (Jackson & Rothmann, 2005); *Work Related Basic Psychological Need Satisfaction Questionnaire* (focusing on autonomy) (Van den Broeck et al., 2008); *Job Satisfaction Survey* (Spector, 1994), and the *Utrecht Work Engagement Scale* (Schaufeli et al., 2006).

### **3.5.1 Multifactor Leadership Questionnaire**

#### **3.5.1.1 Development**

The second section consisted of the revised *Multifactor Leadership Questionnaire* which was developed by Avolio and Bass (2004). The questionnaire consists of 28 items. Transformational leadership consists of inspirational motivation, intellectual stimulation and individual consideration. Transactional leadership consist of contingent rewards, management by exception- active, management by exception- passive and laissez-faire. There are numerous iterations of the MLQ (Bagheri, & Sohrabi, 2015).

This measure assesses factors within transformational leadership, transactional leadership and avoidant leadership dimensions. The Multifactor Leadership Questionnaire was developed by Avolio and Bass in 1995 (Pahi et al., 2016). The measure consists of transformational leadership (with inspirational motivation, intellectual stimulation, and individual consideration as subdimensions) and transactional leadership (with contingent rewards, management by exception- active, management by exception- passive and laissez-faire as subdimensions). The MLQ



measures seven factors within the respective leadership dimensions (Bagheri, & Sohrabi, 2015).

### **3.5.1.2 Reliability and validity**

The primary three factor analysis found that the overall Cronbach alpha coefficient for transformational leadership was 0.87, transactional leadership was at 0.74 and passive avoidant leadership was at 0.77 (Dimitrov & Darova, 2016). Additionally, Bagheri and Sohrabi (2015) analysed the reliability of the measure, and each factor and found idealised influence (0.81); inspirational motivation 0.62; intellectual stimulation (0.74); individualised consideration (0.69); contingent reward (0.70); management by exception (0.64); laissez-faire (0.05) and the total (Factor 7 eliminated (0.90).

Pahi et al. (2016) analysed the discriminant validity of the measure and found laissez-faire at 0.84 (Factor 1); transactional leadership at 0.814 (Factor 1) and 0.825 (Factor 2) and transformational leadership at 0.69 (Factor 2), 0.78 (Factor 2) and 0.83 (Factor 3).

### **3.5.1.3 Description, administration and scoring**

Validity is defined as the ability of an assessment tool to accurately measure a specific construct (Salkind, 2011). Reliability is defined as the ability of a assessment tool to consistently measure a specific construct (Salkind, 2011). The measuring instrument consists of 28 items. Transformational leadership consists of inspirational motivation (The Person I Am Rating... “Talks optimistically about the future”);

intellectual stimulation (“Seeks differing perspectives when solving problems”); and individual consideration, (“Spends time teaching and coaching”). Transactional leadership consist of contingent rewards (“Provides me with assistance in exchange for my efforts”); management by exception- active (“Keeps track of all mistakes”); management by exception- passive (“fails to interfere until problems become serious”), and laissez-faire, (“Fails to interfere until problems become serious”).

#### **3.5.1.4 Rationale for the choice**

The MLQ has been thoroughly investigated and tested, and it has been found to be an appropriate choice to measure facets of leadership (Bagheri and Sohrabi, 2015; Dimitrov & Darova, 2016). Hough et al. (in print) and Hoffmann (2010) found the MLQ to be a valid and reliable measurement within the Namibian context.

### **3.5.2 Work stress questionnaire**

#### **3.5.2.1 Development of instrument**

The measure of work stress consists of role ambiguity, job security, autonomy and workload. Role ambiguity was assessed with the use of a measure that was developed by Rizzo et al. (1970)- the *Role Conflict and Ambiguity Scales (RCA)*. For job insecurity and workload/overload, the dimensions as part of the *Job Demands-Resources Questionnaire* developed by Jackson and Rothmann (2005) were used. For autonomy, the *Work Related Basic Psychological Need Satisfaction Questionnaire* by Van den Broeck et al. (2008) was used. The questionnaire for the work stress section of the questionnaire consists of 23 items.

### **3.5.2.2 Reliability and validity**

Khan et al. (2014) conducted a psychometric analysis of the RCA and found that the role ambiguity scale proved to be reliable with a Cronbach Alpha of 0.85. Furthermore, factor analysis found that the measure was valid (Khan et al., 2014). Factor loading ranges indicated a measure of up to 0.85 (Khan et al., 2014). These findings are supported by Bowling et al. (2017) who found the Cronbach Alpha of up to 0.80 and high levels of substantive validity (0.68). The *Job Demands-Resources Questionnaire* (JDRQ) was developed by Jackson and Rothmann (2005). The questionnaire was found to have an alpha coefficient of 0.76 for overload and 0.89 for job insecurity (Rothmann, Mostert, & Geldenhuys, 2006). Additionally, Pieters and Matheus (2020) found the Cronbach alpha coefficient to be 0.70 and thus reliable. Furthermore, Pieters and Hasheela (2018) found the scales of the measurement reliable with workload (0.76); resources (0.75); organisational support (0.88); job security (0.79) and advancement opportunities (0.88). A reliable Cronbach  $\alpha = 0.92$  for the *Work Related Basic Psychological Need Satisfaction Questionnaire* by Van den Broeck et al. (2008) was found. Pieters, van Zyl, and Nel (2020) found the reliability of autonomy to be 0.78 within the Namibian context. The measure was found to be valid for the study when goodness-of-fit statistical analysis was conducted (Pieters et al., 2020).

### **3.5.2.3 Description, administration and scoring**

Four dimensions are considered for work stress: role ambiguity, job insecurity, autonomy and workload. Role ambiguity (6 items; *I am sure of how much authority I have*) was developed by Rizzo et al. (1970), with the scale rating ranging from 1 = *totally disagree* to 5 = *totally agree*. For job insecurity (3 items; *Do you need to be*

*more secure that you will still be working in one year's time?*) and workload/overload (8 items; *Do you work under time pressure?*) form part of the *Job Demands-Resources Questionnaire* developed by Jackson and Rothmann (2005). For autonomy (6 items; *I feel like I can be myself at my job*) from the *Work Related Basic Psychological Need Satisfaction Questionnaire* by Van den Broeck et al. (2008) was used. The response options range from 1 = *totally disagree* to 5 = *totally agree*.

### **3.5.2.4 Rationale for the choice**

The measures involved in the determination of work stress have all been shown to be reliable and valid in their measurement of the construct (Pieters & Matheus, 2020; Pieters et al., 2020). Furthermore, these questionnaires and scales measure facets of work stress through exploration of aspects such as: how ambiguous their jobs are; how secure their employment is; the level of autonomy available in their work and the levels of workload in their jobs. Studies from Pieters and Matheus (2020) and Pieters et al. (2020) indicate that the study is valid and reliable within the Namibian setting.

### **3.5.3 Job satisfaction questionnaire**

#### **3.5.3.1 Development of the job satisfaction survey**

Job satisfaction was measured by using the revised *Job Satisfaction Survey* (JSS) (20 items) by Spector (1994). The JSS was initially developed by Spector in 1985 (Spector, 1985) and consisted of 36 items measuring job satisfaction. Subscales of the measure include nature of work; pay; promotion; supervision; benefits;

contingent rewards; operating procedures; co-workers; nature of work and communication. This study focused only on pay, promotion, supervision, co-workers, and nature of work for this research.

### **3.5.3.2 Reliability and validity**

The reliability of the JSS was found to be 0.91 (Spector, 1985). Intercorrelations amongst the subsets were all found to be significant (Spector, 1985). These findings concurred with other results from various studies (Abbas & Khanam, 2020; Mesarosova, 2016; Tsounis & Sarafis, 2018). Tsounis and Sarafis (2018) found the Cronbach's alpha for the scale to be 0.87 and Gutman Split-Half Coefficient (0.88). Maleka et al. (2019) found the Cronbach alpha for their study within Namibia, South Africa, and Zimbabwe to be 0.88.

### **3.5.3.3 Description, administration and scoring**

The questionnaire is scaled from 1 (disagree very much) to 6 (agree very much), with the aim of assessing the job satisfaction of individuals across various facets. This study focused only on pay (*I feel I am being paid a fair amount for the work I do*); promotion (*There is really too little chance for promotion on my job*); supervision (*My supervisor is quite competent in doing his/her job*); co-workers (*I like the people I work with*), and nature of work (*I sometimes feel my job is meaningless*).

### **3.5.3.4 Rationale for the choice**

As apparent from the various studies determining the reliability and validity of the measure, the instrument has been shown to be sufficient as a measurement tool. Furthermore, the JSS measures various facets across the dimension of job satisfaction. Accuracy of measurement has been proven across the facets measured for this study including pay, promotion, supervision, co-workers, and nature of work. International (Abbas & Khanam, 2020; Mesarosova, 2016; Tsounis & Sarafis, 2018), and local studies (Maleka et al., 2019) have found the instrument to be a valid and reliable measure for job satisfaction.

### **3.5.4 Work engagement**

#### **3.5.4.1 Development of the Utrecht Work Engagement Scale**

Work engagement will be assessed using the *Utrecht Work Engagement Scale* (UWES-9) developed by Schaufeli et al. (2006); the focus will be on vigour, dedication, and absorption. Schaufeli (2002) stated that engagement was to be viewed as multidimensional. Initially, the scale was developed with 24 items (Schaufeli, 2002) which measured the subdimensions of work engagement i.e., vigour, dedication, and absorption. Vigour had nine items; dedication had eight items, and absorption had seven items (Uhunoma, Lim, & Kim, 2020). The initial scale (UWES-24) was reduced to nine items (UWES-9) after three items for each subdimension were validated (Schaufeli et al., 2006) following a cross-sectional study.

The three dimensions can be classified as vigour (characterised by elevated levels of physical and mental energy characterised by mental strength); dedication

(characterised by involvement in work and the task is experienced enthusiastically) and absorption (characterised as individuals who are highly focused and immersed in work, resulting in a pleasurable experience) (Bakker, 2011).

#### **3.5.4.2 Reliability and validity**

Seppälä et al. (2008) found the reliability for the UWES-9 amongst the dimensions of vigour at  $\alpha = 0.85$ , dedication  $\alpha = 0.85$  and absorption  $\alpha = 0.82$ . Additionally, Lathabhavan, Balasubramanian and Natarajan (2017) found that the Cronbach's  $\alpha$  coefficients were higher than 0.70 for vigour (0.90), dedication (0.89) and for absorption (0.95). Similarly, Cronbach alphas for the study conducted by Pieters and Hasheela (2018) were vigour at 0.71, dedication at 0.87 and absorption at 0.76.

#### **3.5.4.3 Description, administration and scoring**

The UWES-9 is a self-report questionnaire which assess the dimensions of vigour, absorption and dedication. The responses of each of the 9 items are recorded on a 6-point Likert scale ranging from *never* to *every day*. Focusing on vigour (*At my work, I feel bursting with energy*), dedication (*When I get up in the morning, I feel like going to work*) and absorption (*I am immersed in my work*).

#### **3.5.4.4 Rationale for the choice**

Assessment of the psychometric properties of the UWES-9 it presents as a valid and reliability measurement tool within the banking sector, law enforcement and tertiary education (Lathabhavan et al., 2017; Pieters et al., 2019; Pieters & Hasheela, 2018).

Furthermore, the UWES-9 measures the subconstructs of work engagement (vigour, dedication, and absorption), with these subconstructs also being shown to be valid and reliable (Pieters & Hasheela, 2018; Pieters et al., 2019).

### **3.6 Research Procedure**

Firstly, permission was requested from the ethics committee (UNAM), after being granted permission, permission from the Ministry of Health and Social Services was requested. Various healthcare facilities were approached to participate in the study. The respective organisations or healthcare facilities where the subjects work was approached for permission to include their employees as part of the research sample. The purpose of the research was explained to the participants, and their right to refrain from participating in the study was equally explained. Questionnaires were collected after a few days; this was done so as to allow enough time for participants to complete the questionnaire.

### **3.7 Statistical Analysis**

The statistical analysis was carried out by using SPSS program 27.0 (IBM, 2020). The first step involved calculating the descriptive statistics to describe the data. Descriptive statistics can be analysed into measures of central tendency and measures of variability (Selvamuthu & Das, 2018). Inferential statistics focus on generalising data from a sample to a population (Witte & Witte, 2017).

The Pearson correlation coefficient investigates the relationship between two variables that are present on a continuum and determines the changes within one variable when the value of another changes (Salkind, 2011). Multiple regression is a technique used to determine the extent to which numerous variables can predict one



variable statistically (Salkind, 2011). Nonparametric statistics tests are defined as tests that are distribution free (Selvamuthu & Das, 2018). Nonparametric tests are a possible alternative when outcomes of research are of a specific rank, order or are not precisely measured. Additionally, nonparametric tests are applicable when specific assumptions cannot be made (Selvamuthu & Das, 2018).

### **3.8 Research Ethics**

Any risk to participants was minimised and carefully considered and continuously assessed to ensure the safety and well-being of participants. Participants were informed about the study and that they may withdraw from the study without any negative consequences; subsequently, informed consent was obtained. Participation in the study was voluntary. No names were used, and questionnaires had a unique numbering code assigned which was to ensure that participants remained anonymous. All the information of participants was kept confidential and anonymous which ensured that all participants were treated fairly and just. Data is stored away in a locked file cabinet at a secure storage facility for the next five years within the city of Windhoek before being disposed, and only the researcher has access to the data.

### **Chapter Summary**

Chapter 3 has discussed the research designed used for this research study. This chapter summarised the population studied, the population sampling and sampling procedures used, and the methods of data collection. The data analysis procedure was discussed, and ethical considerations used were explained. In following chapter the results obtained through this research study will be reflected on by the researcher.

## Chapter 4: Results

### 4.1 Introduction

This chapter aims at representing the statistical procedures and subsequent analysis of the collected data. The presentation of the data is done through tables, with the discussion and interpretation of the data to follow in the next chapter. Analysis of the scales for leadership styles, work stress, job satisfaction and work engagement were conducted.

### 4.2 Descriptive statistics

The sample consisted of 179 medical professionals from the Khomas region which represents a response rate of 72% from the 250 questionnaires handed out. The majority of the sample were females (79.3%, n=142) and aged between 25-30 years (30.2%, n=54). The majority of the sample obtained a degree (31.3%, n=56) and 42.5% (n=76) of them had 1-2 dependents. The different ranks included enrolled nurses (22.9%, n=41); registered nurses (54.2%, n=97), occupational therapists (5.0%, n=9), physiotherapists (8.4%, n=15) and medical practitioners / specialists (9.5%, n=17) made up the sample population. The rest of the biographical information can be obtained from Table 4.1 below.

*Table 4.1*

#### *Biographical Details of Sample*

<b>Category:</b>	<b>Item:</b>	<b>Frequency:</b>	<b>Percentage:</b>
<b>SEX:</b>	Male:	37	20.7
	Female:	142	79.3

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<b>AGE:</b>	20-24:	5	2.8
	25-30	54	30.2
	31-35	40	22.3
	36-40	37	20.7
	41-45	17	9.5
	51 and older	42	14.0
<b>TENURE:</b>	Less than 1 year	5	2.8
	1-2	24	13.4
	3-4	30	16.8
	5-6	23	12.8
	7-8	26	14.5
	9-10	15	8.4
	11-15	18	10.1
	16 and more	38	21.2
<b>QUALIFICATIONS:</b>	Certificate	29	16.2
	Diploma	35	19.6
	Degree	56	31.3
	Honours Degree	51	28.5
	Master's Degree	6	3.4
	PHD	2	1.1
<b>NUMBER OF DEPENDENTS (children):</b>	None	43	24.0
	1-2	76	42.5
	3-4	46	25.7
	5-6	9	5.0
	7-9	1	.6
	10 and more	4	2.2

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<b>MARITAL STATUS</b>	Single	85	47.5
	Married	81	45.3
	Divorced	12	6.7
	Widowed	1	.6
<b>HIGHEST QUALIFICATION</b>	Certificate	29	16.2
	Diploma	35	19.6
	Degree	56	31.3
	Honours degree	51	28.5
	Master's degree	6	3.4
	PhD degree	2	1.1
	<b>POSITION</b>	Enrolled nurse	41
Registered nurse		97	54.2
Occupational therapist		9	5.0
Physiotherapist		15	8.4
Medical practitioner / Specialist		17	9.5
<b>TOTAL</b>		179	100

Table 4.2 indicates the mean score of each of the reliable scales. For transactional leadership, contingent rewards, management by exception (passive) and management by exception (active) were unreliable. The combined transactional leadership scale was unreliable. For transformational leadership, the intellectual stimulation subscale reported a mean of 13.50, standard deviation of 3.74 and a Cronbach alpha of 0.78. The individual consideration subscale reported a mean of 10.03, standard deviation of 3.01 and a Cronbach alpha of 0.74. The laissez-faire subscale reported a mean of

7.59, standard deviation of 3.23 and a Cronbach alpha of 0.73. The combined transformational leadership scale reported a mean of 27.34, standard deviation of 7.07 and a Cronbach alpha of 0.87. The subscale individual motivation was found to be unreliable.

For work stress, the autonomy subscale reported a mean of 5.84, standard deviation of 2.28 and a Cronbach alpha of 0.81. The role ambiguity subscale reported a mean of 11.53, standard deviation of 4.13 and a Cronbach alpha of 0.81. The workload subscale reported a mean of 23.03, standard deviation of 5.07 and a Cronbach alpha of 0.80. The combined work stress scale reported a mean of 43.56, standard deviation of 7.55 and a Cronbach alpha of 0.72. The subscale job insecurity was unreliable.

For job satisfaction, the subscale advancement and promotion reported a mean of 16.08, standard deviation of 21.62 and a Cronbach alpha of 0.87. The subscale co-workers reported a mean of 8.91, standard deviation of 2.50 and a Cronbach alpha of 0.72. The combined scale for job satisfaction reported a mean of 63.68, standard deviation of 24.94 and a Cronbach alpha of 0.72. Subscales pay, supervision and nature of work were found to be unreliable.

For work engagement, the subscale vigour reported a mean of 10.43, standard deviation of 2.89 and a Cronbach alpha of 0.65, the use of alphas of 0.60 and above are supported by the literature (Resi & Judd, 2000). The subscale dedication reported a mean of 11.57, standard deviation of 2.35 and a Cronbach alpha of 0.69. The subscale absorption reported a mean of 16.15, standard deviation of 3.60 and a Cronbach alpha of 0.67. The total scale for work engagement reported a mean of 43.52, standard deviation of 8.32 and a Cronbach alpha of 0.84.

### 4.3 Inferential statistics

#### 4.3.1 Leadership and work stress

The objective of this study was to assess the impact of leadership styles on work stress. Intellectual stimulation (transformational leadership) reported a negative relationship with TRF\_LF ( $r = -.23, p < 0.05$ ; small effect); a positive relationship with TRF\_IC ( $r = .76, p < 0.05$ ; large effect); a positive relationship with transformational leadership TRF\_COM ( $r = .94, p < 0.05$ ; large effect); a relationship with WS\_AUT ( $r = .00, p < 0.05$ ; almost no effect); a negative relationship with WS\_ROLE ( $r = -.37, p < 0.05$ ; medium effect); a positive relationship with WS\_LOAD ( $r = .15, p < 0.05$ ; small effect); and a negative relationship with WS\_COM ( $r = -.10, p < 0.05$ ; small effect).

Laissez-faire reported negative relationship with individual consideration ( $r = -.17, p < 0.05$ ; small effect); a negative relationship with TRF\_COM ( $r = -.23, p < 0.05$ ; small effect); a negative relationship with WS\_AUT ( $r = -.28, p < 0.05$ ; small effect); a positive relationship with WS\_ROLE ( $r = .29, p < 0.05$ ; small effect); a positive relationship with WS\_LOAD ( $r = .29, p < 0.05$ ; small effect); and a positive relationship with WS\_COM ( $r = .42, p < 0.05$ ; medium effect).

Individual consideration (transformational leadership) reported a positive relationship with TRF\_COM ( $r = .91, p < 0.05$ ; large effect); a positive relationship with WS\_AUT ( $r = .16, p < 0.05$ ; small effect); a negative relationship WS\_ROLE ( $r = -.18, p < 0.05$ ; small effect); a negative relationship with WS\_LOAD ( $r = -.06, p < 0.05$ ; small effect); and a negative relationship with WS\_COM ( $r = -.11, p < 0.05$ ; small effect).

Transformational leadership (combined) reported a positive relationship with WS\_AUT ( $r = .09, p < 0.05$ ; small effect); a negative relationship with WS\_ROLE ( $r = -.31, p < 0.05$ ; medium effect); a positive relationship with WS\_LOAD ( $r = .03, p < 0.01$ ; almost no effect); and a negative relationship with WS\_COM ( $r = -.11, p < 0.05$ ; small effect).

Work stress (authority) reported a reported a positive relationship with ( $r = .17, p < 0.05$ ; small effect); a negative relationship with WS\_LOAD ( $r = -.38, p < 0.05$ ; medium effect); and a negative relationship with WS\_COM ( $r = -.25, p < 0.05$ ; small effect).

Work stress (work role) reported a positive relationship with WS\_LOAD ( $r = .08, p < 0.05$ ; small effect); and a positive relationship with WS\_COM ( $r = .59, p < 0.05$ ; large effect).

Work stress (workload) reported a positive relationship with WS\_COM ( $r = .79, p < 0.05$ ; large effect).

**Table 4.2**

***Descriptive statistics and Pearson rank order correlation***

Item:	Mean	SD	$\alpha$	1	2	3	4	5	6	7	8
1. TRF_IS	13.50	3.73	.78	-							
2. TRF_LF	7.59	3.23	.73	-.23*	-						
3. TRF_IC	10.03	3.09	.70	.76 <sup>++</sup>	-.17*	-					
4. TRF_COM	27.34	7.07	.87	.94 <sup>++</sup>	-.23*	.91 <sup>++</sup>	-				
5. WS_AUT	5.84	2.28	.68	.00	-.28*	.16*	.09*	-			
6. WS_ROLE	11.53	4.134	.81	-.37* <sup>+</sup>	.29*	-.18*	-.31* <sup>+</sup>	.17*	-		
7. WS_LOAD	23.03	5.07	.80	.15*	.29*	-.06*	.03	-.38* <sup>+</sup>	.08*	-	
8. WS_COM	43.56	7.55	.72	-.10*	.42* <sup>+</sup>	-.11*	-.11*	-.25*	.59 <sup>++</sup>	.79 <sup>++</sup>	-

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



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

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

TRF\_IS = Transformational leadership (Intellectual stimulation)

TRF\_LF = Laissez-faire

TRF\_IC = Transformational leadership (Individual consideration)

TRF\_COM = Transformational leadership (Combined)

WS\_AUT = Work stress (Authority)

WS\_ROLE = Work stress (Role ambiguity/ role clarity)

WS\_LOAD = Work stress (Workload)

WS\_COM = Work stress (Combined)

### **4.3.2 Leadership and job satisfaction**

The objective of this study was to assess the impact of leadership styles on job satisfaction. Intellectual stimulation reported a positive relationship with the sub-dimension of job satisfaction (advancement and promotion) ( $r = .17, p < 0.05$ ; small effect); a negative relationship with the sub-dimension co-workers ( $r = -.37, p < 0.05$ ; medium effect) and a positive relationship with job satisfaction combined ( $r = .15, p < 0.05$ ; small effect).

Laissez-faire reported a negative relationship with advancement and promotion ( $r = -.28, p < 0.05$ ; small effect); a positive relationship with co-workers ( $r = .29, p < 0.05$ ; small effect) and a positive relationship with (job satisfaction) ( $r = .29, p < 0.05$ ; small effect).

Individual consideration reported a positive relationship with advancement and promotion ( $r = .16, p < 0.05$ ; small effect); a negative relationship with co-workers ( $r = -.18, p < 0.05$ ; small effect) and a negative relationship with job satisfaction combined ( $r = -.06, p < 0.05$ ; small effect).

Transformational leadership combined reported a positive relationship with advancement and promotion ( $r = .09, p < 0.05$ ; small effect); a negative relationship with co-workers ( $r = -.31, p < 0.05$ ; medium effect) and a positive relationship with job satisfaction combined ( $r = .03, p < 0.05$ ; almost no effect).

Advancement and promotion (job satisfaction) reported a positive relationship with co-workers ( $r = .17, p < 0.05$ ; small effect) and a negative relationship with job satisfaction combined ( $r = -.38, p < 0.05$ ; medium effect).

Co-workers (job satisfaction) reported a positive relationship with job satisfaction combined ( $r = .08, p < 0.05$ ; small effect).

**Table 4.3**

***Descriptive statistics and Pearson rank order correlation***

Item:	Mean	SD	$\alpha$	1	2	3	4	5	6	7
1. TRF_IS	13.50	3.73	.78	-						
2. TRF_LF	7.59	3.23	.73	-.23*	-					
3. TRF_IC	10.03	3.09	.70	.76 <sup>++</sup>	-.17*	-				
4. TRF_COM	27.34	7.07	.87	.94 <sup>++</sup>	-.23*	.91 <sup>++</sup>	-			
5. JS_ADV_PRO	5.84	2.28	.68	.17*	-.28*	.16*	.09*	-		
6. JS_CWORK	11.53	4.134	.81	-.37* <sup>+</sup>	.29*	-.18*	-.31* <sup>+</sup>	.17*	-	
7. JS_COMBINED	23.03	5.07	.80	.15*	.29*	-.06*	.03	-.38* <sup>+</sup>	.08*	-

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

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

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

TRF\_IS = Transformational leadership (Intellectual stimulation)

TRF\_LF = Laissez-faire

TRF\_IC = Transformational leadership (Individual consideration)

TRF\_COM = Transformational leadership (Combined)

JS\_ADV\_PRO = Job satisfaction (advancement / promotion)

JS\_CWORK = Job satisfaction (co-workers)

JS\_COMBINED = Job satisfaction (combined)

### **4.3.3 Leadership and work engagement**

The objective of this study was to assess the impact of leadership styles on work engagement. Intellectual stimulation reported a negative relationship with vigour ( $r = -.02, p < 0.05$ ; almost no effect); a negative relationship with dedication ( $r = -.01, p < 0.05$ ; almost no effect); a positive relationship with absorption ( $r = .06, p < 0.05$ ; small effect) and a positive relationship with work engagement (combined) ( $r = .03, p < 0.05$ ; almost no effect).

Laissez-faire reported a negative relationship with vigour ( $r = -.29, p < 0.05$ ; small effect); a negative relationship with dedication ( $r = -.31, p < 0.05$ ; medium effect); a negative relationship with absorption ( $r = -.17, p < 0.05$ ; small effect) and a negative relationship with work engagement (combined) ( $r = -.30, p < 0.05$ ; medium effect).

Individual consideration reported a positive relationship with vigour ( $r = .03, p < 0.05$ ; almost no effect); a positive relationship with dedication ( $r = .03, p < 0.05$ ; almost no effect); a positive relationship with absorption ( $r = .12, p < 0.05$ ; small effect) and a positive relationship work engagement (combined) ( $r = .09, p < 0.05$ ; small effect).

Transformational leadership combined reported a positive relationship with vigour ( $r = .02, p < 0.05$ ; almost no effect); a positive relationship with dedication ( $r = .05, p < 0.05$ ; small effect); a positive relationship with absorption ( $r = .11, p < 0.05$ ; small effect) and a positive relationship with work engagement combined ( $r = .09, p < 0.05$ ; small effect).

Vigour reported a positive relationship with dedication ( $r = .61, p < 0.05$ ; large effect); a positive relationship with absorption ( $r = .38, p < 0.05$ ; medium effect) and a positive relationship with work engagement combined ( $r = .75, p < 0.05$ ; large effect).

Dedication reported a positive relationship with absorption ( $r = .59, p < 0.05$ ; large effect) and a positive relationship with work engagement combined ( $r = .85, p < 0.05$ ; large effect).

Absorption reported a positive relationship with work engagement combined ( $r = .85, p < 0.05$ ; large effect)

**Table 4.4**

***Descriptive statistics and Pearson rank order correlation***

Item:	Mean	SD	$\alpha$	1	2	3	4	5	6	7	8
1. TRF_IS	13.50	3.73	.78	-							
2. TRF_LF	7.59	3.23	.73	-.23*	-						
3. TRF_IC	10.03	3.09	.70	.76 <sup>++</sup>	-.17*	-					
4. TRF_COM	27.34	7.07	.87	.94 <sup>++</sup>	-.23*	.91 <sup>++</sup>	-				
5. WE_VIG	5.84	2.28	.68	-.02	-.29*	.03	.02	-			
6. WE_DED	11.53	4.134	.81	-.01	-.31 <sup>*+</sup>	.03	.05*	.61 <sup>++</sup>	-		
7. WE_ABS	23.03	5.07	.80	.06*	-.17*	.12*	.11*	.38 <sup>*+</sup>	.59 <sup>++</sup>	-	
8. WE_COM	43.56	7.55	.72	.03	-.30 <sup>*+</sup>	.09*	.09*	.75 <sup>++</sup>	.85 <sup>++</sup>	.85 <sup>++</sup>	-

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

\*\* Statistically significant:  $p \leq 0,1$

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

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

TRF\_IS = Transformational leadership (Intellectual stimulation)

TRF\_LF = Laissez-faire

TRF\_IC = Transformational leadership (Individual consideration)

TRF\_COM = Transformational leadership (Combined)

WE\_VIG = Work engagement (vigour)

WE\_DED = Work engagement (dedication)

WE\_ABS = Work engagement (absorption)

WE\_COM = Work engagement (combined)

#### 4.4 Nonparametric statistics

##### Hypothesis test summary: Sex

**Table 4.5**

##### *Hypothesis test summary*

Null Hypothesis	Test		Sig. <sup>a,b</sup>	Decision
1. The distribution of TRF_COMBINED is the same across categories of Sex	Independent-Samples U Test	Mann-Whitney	.80	Retain the null hypothesis
2. The distribution of WS_COMBINED is the same across categories of Sex	Independent-Samples U Test	Mann-Whitney	.78	Retain the null hypothesis
3. The distribution of JS_COMBINED is the same across categories of Sex	Independent-Samples U Test	Mann-Whitney	.02	Reject the null hypothesis
4. The distribution of WE_COMBINED is the same across categories of Sex	Independent-Samples U Test	Mann-Whitney	.00	Reject the null hypothesis

a. The significance level is 0.50



**Table 4.6**

**Descriptive statistics - Sex**

		WS_COMBINED	JS_COMBINED	WE_COMBINED
MALE	Mean	43.95	58.57	40.32
	Std.	8.68	9.94	8.48
	Deviation			
FEMALE	Mean	43.46	65.01	44.35
	Std.	7.25	27.41	8.10
	Deviation			
TOTAL	Mean	43.56	63.68	43.52
	Std.	7.55	24.94	8.32
	Deviation			

From the hypothesis test transformational leadership (combined) is distributed evenly across categories of sex and the hypothesis can be accepted at an insignificance level of 0.80. Work stress (combined) is distributed evenly across categories of sex and the hypothesis can be accepted at a significance level of 0.78. For job satisfaction combined the distribution of categories of sex is not distributed evenly and the hypothesis should be rejected. For work engagement the distribution of categories is not distributed evenly, and the hypothesis should be rejected.

**Table 4.7**

**Ranks and test statistics – Age**

	Age	N	Mean Rank
TRF_COMBINED	20-24	5	106.50
	25-30	54	87.83
	31-35	40	79.93
	36-40	37	92.22

	41-45	17	93.56
	46-50	8	84.44
	51 and older	18	108.86
	Asymp. Sig.		0.58
	<b>Total</b>	<b>179</b>	
WS_COMBINED	20-24	5	110.70
	25-30	54	79.11
	31-35	40	75.76
	36-40	37	100.51
	41-45	17	105.71
	46-50	8	116.69
	51 and older	18	100.25
	Asymp. Sig.		0.08
	<b>Total</b>	<b>179</b>	
JS_COMBINED	20-24	5	71.80
	25-30	54	87.90
	31-35	40	89.98
	36-40	37	93.30
	41-45	17	89.85
	46-50	8	72.31
	51 and older	18	102.64
	Asymp. Sig.		0.83
	<b>Total</b>	<b>179</b>	
WE_COMBINED	20-24	5	48.40
	25-30	54	79.76
	31-35	40	106.35
	36-40	37	91.86
	41-45	17	99.71
	46-50	8	68.31
	51 and older	18	92.58
	Asymp. Sig.		0.6
	<b>Total</b>	<b>179</b>	

The significance level is 0.05

From the analysis there is no statistically significant difference across the groups for the work stress (combined) variable (0.06); no statistically significant difference across the groups for the job satisfaction (combined) variable (0.83) and no statistically significant difference across the groups for the work engagement (combined) variable (0.08). The highest mean ranking for transformational leadership (combined) is for the age 51 and older (108.86) and the lowest mean rank for the age group 31-35 (79.93). The highest mean ranking for work stress (combined) is for the age group 46-50 (116.69) and the lowest mean rank for the age group 31-35 (75.76). The highest mean ranking for job satisfaction (combined) is 51 and older (102.64) and the lowest mean rank for the age group 20-24 (71.80). The highest mean ranking for work engagement (combined) is for the age group 31-35 (106.35) and the lowest mean rank for the age group 20-24 (48.40).

**Table 4.8**

***Ranks and test statistics – Total number of years in the profession***

	Years in profession	N	Mean Rank
TRF_COMBINED	Less than 1	5	108.20
	1-2	24	78.29
	3-4	30	106.82
	5-6	23	66.87
	7-8	26	86.44
	9-10	15	98.40
	11-15	18	74.92
	16 and more	38	101.99
	Asymp. Sig.		0.06
	<b>Total</b>	<b>179</b>	
WS_COMBINED	Less than 1	5	73.30

	1-2	24	101.58
	3-4	30	69.82
	5-6	23	76.09
	7-8	26	87.60
	9-10	15	66.17
	11-15	18	106.53
	16 and more	38	112.46
	Kruskal-Wallis H		20.17
	Asymp. Sig.		0.05
	<b>Total</b>	<b>179</b>	
JS_COMBINED	Less than 1	5	115.30
	1-2	24	88.83
	3-4	30	95.85
	5-6	23	76.93
	7-8	26	89.90
	9-10	15	82.37
	11-15	18	93.36
	16 and more	38	92.18
	Kruskal-Wallis H		3.52
	Asymp. Sig.		0.83
	<b>Total</b>	<b>179</b>	
WE_COMBINED	Less than 1	5	85.80
	1-2	24	67.71
	3-4	30	91.12
	5-6	23	78.35
	7-8	26	120.62
	9-10	15	107.03
	11-15	18	93.81
	16 and more	38	80.01
	Kruskal-Wallis H		17.94
	Asymp. Sig.		0.01
	<b>Total</b>	<b>179</b>	

The significance level is 0.05

From the analysis there is no statistically significant difference across the groups for transformational leadership (combined) variable (0.06); no statistically significant difference across the groups for the work stress (combined) variable (0.05); no statistically significant difference across the groups for the job satisfaction (combined) variable (0.83) and a statistically significant difference across the groups for the work engagement (combined) variable (0.01). The highest mean ranking for transformational leadership (combined) is for the group working less than 1 year in the profession (108.20) and the lowest mean rank for the group 5-6 years in the profession (66.87). The highest mean ranking for work stress (combined) is the group 11-15 years in the profession (112.46) and the lowest mean rank the group 9-10 years in the profession (66.17). The highest mean ranking for job satisfaction (combined) is group less than one year in the profession (115.30) and the lowest mean rank for the group 5-6 years in the profession (76.93). The highest mean ranking for work engagement (combined) is for the group 7-8 years in the profession (120.62) and the lowest mean rank for the group 1-2 years in the profession (67.71).

**Table 4.9**

**Ranks and test statistics – Marital status**

	Marital status	N	Mean Rank
TRF_COMBINED	Single	85	93.91
	Married	81	83.12
	Divorced	12	107.75
	Widowed	1	102.50
	Kruskal-Wallis H		3.39
	Asymp. Sig.		0.34
	<b>Total</b>	<b>179</b>	
WS_COMBINED	Single	85	81.70

	Married	81	95.72
	Divorced	12	112.13
	Widowed	1	67.00
	Kruskal-Wallis H		5.56
	Asymp. Sig.		0.14
	<b>Total</b>	<b>179</b>	
JS_COMBINED	Single	85	86.34
	Married	81	87.70
	Divorced	12	128.96
	Widowed	1	120.00
	Kruskal-Wallis H		7.72
	Asymp. Sig.		0.05
	<b>Total</b>	<b>179</b>	
WE_COMBINED	Single	85	83.45
	Married	81	93.33
	Divorced	12	116.96
	Widowed	1	53.00
	Kruskal-Wallis H		5.47
	Asymp. Sig.		0.14
	<b>Total</b>	<b>179</b>	

The significance level is 0.05

From the analysis there is no statistically significant difference across the groups for transformational leadership (combined) variable (0.34); no statistically significant difference across the groups for the work stress (combined) variable (0.14); no statistically significant difference across the groups for the job satisfaction (combined) variable (0.05) and no statistically significant difference across the groups for the work engagement (combined) variable (0.14). The highest mean ranking for transformational leadership (combined) is for the divorced group

(107.75) and the lowest mean rank for the married group (83.12). The highest mean ranking for work stress (combined) is the divorced group (112.13) and the lowest mean rank the widowed group (67.00). The highest mean ranking for job satisfaction (combined) is the divorced group (128.96) and the lowest mean rank for the single group (86.34). The highest mean ranking for work engagement (combined) is for the divorced group (116.96) and the lowest mean rank for the widowed group (53.00).

**Table 4.10**

***Ranks and test statistics – Number of dependents***

	Number of dependents	N	Mean Rank
TRF_COMBINED	None	43	81.28
	1-2	76	91.99
	3-4	46	92.60
	5-6	9	92.44
	7-9	1	114.00
	10 and more	4	104.63
	Kruskal-Wallis H		2.00
	Asymp. Sig.		0.85
	<b>Total</b>	<b>179</b>	
WS_COMBINED	None	43	77.83
	1-2	76	87.18
	3-4	46	94.35
	5-6	9	108.06
	7-9	1	135.50
	10 and more	4	172.38
	Kruskal-Wallis H		14.93
	Asymp. Sig.		0.01
	<b>Total</b>	<b>179</b>	
JS_COMBINED	None	43	93.24
	1-2	76	86.05

	3-4	46	91.93
	5-6	9	110.00
	7-9	1	92.00
	10 and more	4	62.50
	Kruskal-Wallis H		3.15
	Asymp. Sig.		0.68
	<b>Total</b>	<b>179</b>	
WE_COMBINED	None	43	80.01
	1-2	76	87.01
	3-4	46	105.51
	5-6	9	106.33
	7-9	1	83.00
	10 and more	4	40.75
	Kruskal-Wallis H		10.53
	Asymp. Sig.		0.062
	<b>Total</b>	<b>179</b>	

The significance level is 0.05

From the analysis there is no statistically significant difference across the groups for transformational leadership (combined) variable (0.85); a statistically significant difference across the groups for the work stress (combined) variable (0.01); no statistically significant difference across the groups for the job satisfaction (combined) variable (0.68) and no statistically significant difference across the groups for the work engagement (combined) variable (0.06). The highest mean ranking for transformational leadership (combined) is for the group with 7-9 dependents (114.00) and the lowest mean rank for the group with no dependents (81.28). The highest mean ranking for work stress (combined) is the group with 10 and more dependents (172.38) and the lowest mean rank for the group with no



dependents (77.83). The highest mean ranking for job satisfaction (combined) is the 5-6 dependents group (110.00) and the lowest mean rank for the group with 10 and more dependents (62.50). The highest mean ranking for work engagement (combined) is for the group with 5-6 dependents (106.33) and the lowest mean rank for the group with 10 and more dependents (40.75).

**Table 4.11**

***Ranks and test statistics – Highest qualification obtained***

	Highest qualification	N	Mean Rank
TRF_COMBINED	Certificate	29	101.59
	Diploma	35	88.24
	Degree	56	95.24
	Honors degree	51	78.24
	Master's degree	6	97.75
	PhD degree	2	82.75
	Kruskal-Wallis H		4.85
	Asymp. Sig.		0.43
	<b>Total</b>	<b>179</b>	
WS_COMBINED	Certificate	29	76.29
	Diploma	35	82.70
	Degree	56	88.11
	Honors degree	51	100.65
	Master's degree	6	124.58
	PhD degree	2	94.25
	Kruskal-Wallis H		7.66
	Asymp. Sig.		0.18
	<b>Total</b>	<b>179</b>	
JS_COMBINED	Certificate	29	100.76
	Diploma	35	99.83
	Degree	56	86.59

	Honors degree	51	78.08
	Master's degree	6	109.67
	PhD degree	2	102.50
	Kruskal-Wallis H		6.44
	Asymp. Sig.		0.27
	<b>Total</b>	<b>179</b>	
WE_COMBINED	Certificate	29	98.86
	Diploma	35	93.86
	Degree	56	91.73
	Honors degree	51	77.54
	Master's degree	6	108.42
	PhD degree	2	108.00
	Kruskal-Wallis H		5.07
	Asymp. Sig.		0.41
	<b>Total</b>	<b>179</b>	

The significance level is 0.05

From the analysis there is no statistically significant difference across the groups for transformational leadership (combined) variable (0.43); no statistically significant difference across the groups for the work stress (combined) variable (0.18); no statistically significant difference across the groups for the job satisfaction (combined) variable (0.27) and no statistically significant difference across the groups for the work engagement (combined) variable (0.41). The highest mean ranking for transformational leadership (combined) is for the group with a certificate qualification (101.59) and the lowest mean rank for the group with an honors degree qualification (78.24). The highest mean ranking for work stress (combined) is for the group with a master's degree qualification (124.58) and the lowest mean rank for the group with a certificate qualification (76.29). The highest mean ranking for job

satisfaction (combined) is the group with a master's degree (109.67) and the lowest mean rank for the group with an honors degree (78.08). The highest mean ranking for work engagement (combined) is for the group with an honors degree (77.54) and the lowest mean rank for the group with a master's degree (108.42).

**Table 4.12**

***Ranks and test statistics – Position***

	Position	N	Mean Rank
TRF_COMBINED	Enrolled nurse	41	96.89
	Registered nurse	97	87.34
	Occupational therapist	9	108.61
	Physiotherapist	15	93.37
	Medical practitioner	17	75.76
	Kruskal-Wallis H		3.50
	Asymp. Sig.		0.48
	<b>Total</b>	<b>179</b>	
WS_COMBINED	Enrolled nurse	41	73.62
	Registered nurse	97	92.55
	Occupational therapist	9	105.22
	Physiotherapist	15	93.73
	Medical practitioner	17	103.62
	Kruskal-Wallis H		6.37
	Asymp. Sig.		0.17
	<b>Total</b>	<b>179</b>	
JS_COMBINED	Enrolled nurse	41	96.60
	Registered nurse	97	87.70
	Occupational therapist	9	99.22
	Physiotherapist	15	102.00
	Medical practitioner	17	71.74
	Kruskal-Wallis H		4.06
	Asymp. Sig.		0.40
	<b>Total</b>	<b>179</b>	

	<b>Total</b>	<b>179</b>	
WE_COMBINED	Enrolled nurse	41	93.78
	Registered nurse	97	87.97
	Occupational therapist	9	97.17
	Physiotherapist	15	97.37
	Medical practitioner	17	82.15
	Kruskal-Wallis H		1.24
	Asymp. Sig.		0.87
	<b>Total</b>	<b>179</b>	

The significance level is 0.05

From the analysis there is no statistically significant difference across the groups for transformational leadership (combined) variable (0.48); no statistically significant difference across the groups for the work stress (combined) variable (0.18); no statistically significant difference across the groups for the job satisfaction (combined) variable (0.40) and no statistically significant difference across the groups for the work engagement (combined) variable (0.87). The highest mean ranking for transformational leadership (combined) is for the occupational therapist group (108.61) and the lowest mean rank for the medical practitioner group (75.76). The highest mean ranking for work stress (combined) is for the occupational therapist group (105.22) and the lowest mean rank for the enrolled nurse group (73.62). The highest mean ranking for job satisfaction (combined) is the physiotherapist group (102.00) and the lowest mean rank for the medical practitioner group (71.74). The highest mean ranking for work engagement (combined) is for the physiotherapist group (97.37) and the lowest mean rank for the medical practitioner group (82.15).

#### **4.5 Chapter Summary**

This chapter recorded the empirical findings of the research study. Firstly, the descriptive statistics of the sample was discussed. Report was provided in order to compare the scores of medical professionals related to leadership styles, work stress, job satisfaction and work engagement. Pearson correlations were reported. A few moderate correlations were found between the subscales of leadership, work stress, job satisfaction and work engagement. Transformational leadership had a negative effect on role ambiguity (work stress). Transformational leadership (combined) was shown to decrease co-workers (job satisfaction). The study found a negative relationship between laissez-faire leadership and vigour (work engagement), dedication (work engagement). Nonparametric statistics were also reported. Distribution of transformational leadership (combined) and work stress (combined) were found to be the same across categories of sex. Distribution of job satisfaction (combined) and work engagement (combined) was found to be different across categories of sex.

The next chapter will discuss the findings of chapter 4 in order to address the research objectives within context and literature. Furthermore, the chapter will also discuss the conclusion and the limitations of the study noted by the researcher. Recommendations and future studies regarding the dimensions of the study will also be provided.

## **Chapter 5: Discussion, conclusion and recommendations**

### **5.1 Introduction**

This chapter aims at discussing the results presented in the previous chapter. Literature from previous studies that give insights into the presented results will be discussed. Further discussions will focus on the results within the leadership, work stress, job satisfaction and work engagement dimensions.

### **5.2 Leadership and work stress**

The results of this study indicate that intellectual stimulation (transformational leadership) negatively impacts role ambiguity (work stress) ( $r = -.37, p < 0.05$ ; medium effect). These findings are supported by Charoensukmongkol and Puyod (2021). Intellectual stimulation may provide more clarity regarding employee work roles due to leaders challenging assumptions of followers and promoting thinking. Organisations which stimulate critical thinking, challenge prevalent assumptions, and encourage novel ideas would decrease the ambiguity and increase role clarity of employees.

Individualised consideration (transformational leadership) was shown to positively correlate with autonomy (work stress) ( $r = .16, p < 0.05$ ; small effect) and negatively correlate to ambiguity (work stress) ( $r = -.18, p < 0.05$ ; small effect). It may be contemplated that individualised consideration decreases role ambiguity due to open channels of communication, empathy and support provided by the leader; this in turn allows for the sharing of information and clarification of employee roles. When individuals in leadership positions act empathetically, are supportive and allow for open communication channels, this allows for the employee to articulate and identify

uncertainties within their work role. Individualised consideration allows for employees to be challenged and supported in their endeavours which encourages employees to grow within their respective roles with the added support of a leader.

Transformational leadership (combined) had a negative effect on role ambiguity (work stress) ( $r = -.31, p < 0.05$ ; medium effect). These results are supported by Charoensukmongkol and Puyod (2021). Transformational leadership provides role clarity to employees thus reducing work stress.

Laissez-faire leadership was found to negatively impact autonomy (work stress) ( $r = -.28, p < 0.05$ ; small effect). Yang (2015) states that leaders who employ the laissez-faire style allow for their employees to enhance their autonomy. For this study the opposite was recorded.

Additionally, this study found that laissez-faire leadership positively correlates to role ambiguity (work stress) ( $r = .29, p < 0.05$ ; small effect). These results are supported by Skogstad et al. (2014) who found that laissez-faire leadership enhances role ambiguity. The results indicate that laissez-faire leadership decreases role ambiguity which may be a result of lack of direct leadership. Due to a lack of guidance from leaders, it may be expected that followers are unable to determine what to do in their jobs which increases job ambiguity.

In this study, laissez-faire increased workload (work stress) ( $r = .29, p < 0.05$ ; small effect). Lack of leadership or passive leadership has been shown to increase workload (Che et al., 2017). At times, employees need guidance from leadership, and the absence of guidance adds to demands at work.

### **5.3 Leadership and job satisfaction**

A positive relationship exists between intellectual stimulation (transformational leadership) and promotion (job satisfaction) ( $r = .17, p < 0.05$ ; small effect), co-workers (job satisfaction) ( $r = -.37, p < 0.05$ ; medium effect) and job satisfaction (combined) ( $r = .15, p < 0.05$ ; small effect). These findings indicate that leaders that stimulate critical thinking not just on an individual level, but as a collective, foster closer employee collaboration and increase the opinions that employees have of one another. Hanaysha et al. (2012) found that intellectual stimulation enhances job satisfaction. This may be because of leaders challenging employees' assumptions and allowing for them to think independently. Shurbagi (2014) found that intellectual stimulation correlates positively to co-worker satisfaction. This indicates that the shared promotion of thinking amongst co-workers enhances comradery and facilitates aligning thought-patterns within employee groups. Open-minded leaders who facilitate critical thinking may also allow for clarification on attaining results that can result in advancement of positions or promotions.

Individualised consideration correlated positively with promotion (job satisfaction) ( $r = .16, p < 0.05$ ; small effect) and job satisfaction combined in this study ( $r = -.06, p < 0.05$ ; small effect). These results are supported by Munir et al. (2012) who found that individualised consideration positively influences job satisfaction. It is apparent that leaders who are empathetic and supportive of their employees show that leaders do care for their followers.

Transformational leadership (combined) was shown to decrease co-workers (job satisfaction) ( $r = -.31, p < 0.05$ ; medium effect). These results are supported by Ali et al., (2013) and Bateh and Heylinger (2014).



Laissez-faire leadership correlated positively with co-workers (job satisfaction) ( $r = .29, p < 0.05$ ; small effect) and negatively with job satisfaction (combined) ( $r = .29, p < 0.05$ ; small effect). These results are similar to results from studies by Skogstad (2014) and Barnett (2017) who found that laissez-faire leadership negatively influences job satisfaction of subordinates. This is not surprising seeing that lack of leadership results in decreased job satisfaction due to the leaders' apparent lack of involvement in the professional lives of employees.

#### **5.4 Leadership and work engagement**

A positive relationship (insignificant) was found between intellectual stimulation (transformational leadership) and absorption (work engagement) ( $r = .06, p < 0.05$ ; small effect). Individualised consideration (transformational leadership) correlated positively (insignificant) with absorption (work engagement) ( $r = .12, p < 0.05$ ; small effect) and work engagement (combined) ( $r = .09, p < 0.05$ ; small effect). Transformational leadership (combined) correlated positively (insignificant) with dedication (work engagement) ( $r = .05, p < 0.05$ ; small effect), absorption (work engagement) ( $r = .11, p < 0.05$ ; small effect) and work engagement (combined) ( $r = .09, p < 0.05$ ; small effect). The results are supported by the findings of Ghadi, Fernando and Caputi (2013), which found that transformational leadership directly influences work engagement- similar to this study.

The study found a negative relationship between laissez-faire leadership and vigour (work engagement) ( $r = -.29, p < 0.05$ ; small effect), dedication (work engagement) ( $r = -.31, p < 0.05$ ; medium effect) and absorption (work engagement) ( $r = -.17, p < 0.05$ ; small effect). These results concur with Gigaba (2015) who determined that

laissez-faire leadership has a significant detrimental influence on employee engagement. This could be due to a lack of leadership motivating employees and low-quality leadership-follower relationships. When vigour and dedication are lacking, it can result in employees investing less cognitive or emotional resources to be utilised due to the need to mitigate the effects of absent leadership, leaving less resources to promote work engagement.

## **5.5 Conclusion**

In summation, the majority of the participants are female and between 25-40 years of age. Occupationally, most of the respondents were registered nurses. Both intellectual stimulation and individualised consideration (transformational leadership) had positive effects on role autonomy (work stress) and a negative impact on role clarity (work stress). Intellectual stimulation and individualised consideration (transformational leadership) had positive effects on job satisfaction dimensions, promotion; co-workers; and job satisfaction combined. Laissez-faire leadership was found to relate negatively to autonomy (work stress); co-workers (job satisfaction); promotion (job satisfaction); promotion (job satisfaction); vigour (work engagement); dedication (work engagement); absorption (work engagement and work engagement (combined)). Laissez-faire leadership had a positive correlation with role ambiguity (work stress), workload (work stress) and work stress combined. Combined transformational leadership correlated negatively with role ambiguity (work stress), and it had positive correlations with promotion (job satisfaction), co-workers (job satisfaction) and job satisfaction combined.

“Lack of quality care contributes to high deaths” (Republikein, 2021) read the article on the front page of a prominent Namibian daily newspaper during the devastating third wave of the COVID-19. Further reading of the article not only highlights major shortages of qualified nurses and health practitioners but also clear lack of planning and support from government institutions, and this hindered the expansion of private healthcare facilities to combat the effects of the COVID-19 virus outbreak. These issues may point to more than just lack of operational and financial planning but to broad ranging psychological influences such as leadership, job stress, job satisfaction and work engagement.

## **5.6 Practical implications**

Available literature indicates that steps can be taken to incorporate transformational leadership styles to reduce employee work stress, job satisfaction and work engagement (Aydin, Sarier, & Uysal, 2013; Dartey-Baah & Ampofo, 2015; Pishgooie et al., 2018; Siregar, 2018). The demanding setting of working within the healthcare sector and the responsibility of working with the well-being of patients produces high levels of stress. Encouraging supportive leadership may reduce stress levels. This can be achieved by allowing for debriefing sessions between leaders and subordinates. Allowing for employees to air grievances or concerns can assist leaders in providing the support and feedback that would be deemed supportive in mitigating the effects of stress at work.

When leaders take responsibility for and embody the values of the organisation, they are able to provide sufficient amounts of feedback to subordinates. Managers can schedule check-in times for employees to facilitate feedback session as part of the

engagement management strategy. Managers should not limit feedback to individuals but should extend it to groups of employees too.

Hospitals, healthcare facilities and state-run facilities should attempt to identify leadership styles within their organisations. It is imperative that workshops be held in collaboration with both the Ministry of Health and Social Services and private entities. This would provide a clear picture of the types of leadership styles are prevalent and what effect these styles have on the organisation as a whole and its respective treatment units within private and public enterprises. Furthermore, this would ensure that the same levels of care exist between both sectors of healthcare. By identifying leadership styles, the organisations can attempt to construct teams that function better with the right combinations of personality types and leadership styles. Not only would this enhance teamwork and organisational effectiveness, but it ultimately ensures better care for patients. It may be important for organisations within the healthcare system to identify areas where laissez-faire leadership is prevalent. Identifying these types of leaders allows for organisations to develop skills and abilities in these leaders that enable them to be more present during work.

It is pivotal that protocols and guidelines be implemented for the management of work stress. The COVID-19 epidemic has placed immense pressure on existent healthcare infrastructure and especially healthcare professionals, and it has highlighted glaring limitations in how organisations deal with high levels of work stress. Implementing these processes would not only inoculate employees in the event of future nationwide healthcare challenges, but it would be a clear message to employees that their well-being is important for these organisations.

Practical implications to enhance work engagement may include developing and creating a mission and vision statements that employees can feel part of and buy into. The core values and a mission statement of the company forms the foundation of the culture of the company. When the values and missions are identified, it is important that leaders within the organisation lead by example by holding themselves and others accountable.

Companies should engage with the broader public as well. Implementing social projects that uplift society and contributing to society can improve engagement amongst employees. Working for a company to enhance the lives of others develops feelings of involvement and engagement within organisations and employees.

Companies can develop volunteer days whereby employees can be involved in volunteering for charity. This may require that companies split their employees into two or three groups that can attend these functions, and the company would not be short-staffed during these events. This will also ensure that all staff are afforded the opportunity to participate in these events.

Recognising and rewarding high performing employees can also enhance employee engagement. Employees who are recognised for their efforts are more willing to go the extra distance for the organisation and customer. Leaders should take the time to praise good performances and in turn, praise co-workers. Recognising employees should form part of day-to-day operations. Communications of recognitions should not be limited to specific employees but should also be communicated to the whole company.

Companies should regularly check the engagement of their employees by using employee engagement surveys on a frequent basis. This allows the company to then make clear a statement that they value their employees.

The researcher's own experience within the healthcare sector indicates that equipping employees with the skills and abilities to complete life-saving treatments competently would encourage them to approach more difficult tasks with commitment and ultimately higher levels of engagement. By being able to be more effective, employees would not only be more engaged but also be more satisfied with their work. This aligns well with the proposition of Barbara Lee Fredrickson's Broaden-and-Build Theory (1998), which allows for the individual to capitalise on the resultant thought-action collectives and building on psychological, emotional, social, and intellectual resources. These acts can be beneficial for organisations with limited resources – such as government institutions – to encourage praise for work well done.

Prioritising the physical and mental health of employees enhances the well-being of employees. Wellness initiatives include initiatives such as discounted gym memberships and encouraging group wellness activities such as weekly walking, running or bicycling activities. Furthermore, companies should encourage mental health activities such as meditation and/or meditative yoga. Companies may also provide healthy snacks and refreshing beverages can be made available at discounted prices.

Furthermore, workshops on enhancing the emotional intelligence of leaders and employees may prove beneficial. This would allow for the respective parties to

communicate more effectively whilst being able to identify when individuals' stress levels are detrimental to job performance.

The demographic analysis of the data in this study indicates that the majority of the sample population fall between the age ranges of 25-40. This indicates that the working population is still relatively young. Thus, it may be beneficial to initiate initiatives whereby processes are put in place that allow for valuable knowledge and skills to be transferred from more experienced staff to those who will occupy future leadership positions. Enabling skills and knowledge transfer can facilitate high levels of patient care to be enhanced and continued. Furthermore, this cycle should not be limited to existing employees. Including students and residents in the process can produce a continued cycle of knowledge advancement. In the long-term, facilities may save funds as a result of developing in-house talent instead of investing in outsourcing talent.

### **5.7 Limitations**

During the collection of data, it was important to determine the shift schedules of respondents- especially the nursing population. This was needed due to the shift changes that are required within the hospital or healthcare setting.

Limitations included the uncertainties that respondents, especially nurses, had regarding who to rate. This is because nurses report to shift managers, unit managers, head matrons, hospital managers and importantly doctors as well. This is especially important considering the lack of reliability regarding the leadership scale. Furthermore, it is important to note that many – if not most – of the respondents' proficiency in English is of a second or third language level. This may have caused uncertainty regarding the phrasing or wording of questions.

## **5.8 Future research**

This study provided some valuable insights into the perceptions of healthcare workers regarding their superiors' leadership styles and the influence they have on their levels of work engagement, job satisfaction and work stress. There also appears to be a need to review the questionnaire to make the questions easier to understand. Furthermore, considering the novelty of this study, no such study had been previously conducted with regards to the variables investigated and sample tested; further research into standardising the research instruments is imperative. Future research may look at further investigation of the identified population. This may shed more light on some of the discrepancies identified in the analysis of the data collected. Additionally, further insight may be found if the dimensions of leadership, engagement, job satisfaction and work stress are investigated. Additional research would supplement this study and provide further avenues that can be investigated. Future research should consider focusing on private and government institutions separately to further identify where existing discrepancies stem from.

## **5.9 Chapter Summary**

This chapter discussed the results of this research study. The results with regards to the dimensions of leadership styles, work engagement, job satisfaction and work stress were reported and discussed. Findings related to biographical dimensions were reported. The chapter also provided recommendations regarding practical implementation of interventions. Furthermore, the limitations of the study and future research were also identified and discussed.



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## Appendices

### Appendix 1: Permission request letter to conduct study from UNAM



#### ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: FHSS /607/2021      Date: 15 March 2021

This Ethical Clearance Certificate is issued by the University Of Namibia Research Ethics Committee (UREC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the Faculty/Centre/Campus Research & Publications Committee sitting with the Postgraduate Studies Committee.

**Title of Project:** Investigating The Influence Of Leadership Styles on Work Stress , Job Satisfaction And Work Engagement Of Health Care Professionals Within the Khomas Region, Namibia

**Student:** MICHAEL NICOLAAS HOUGH

**Student Number:** 201058839

**Supervisor(s)** *Dr. W. Pieters*

**Faculty:** Faculty of Humanities and Social Sciences

Take note of the following:

- (a) Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the HREC. An application to make amendments may be necessary.
- (b) Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the HREC.
- (c) The Principal Researcher must report issues of ethical compliance to the UREC (through the Chairperson of the Faculty/Centre/Campus Research & Publications Committee) at the end of the Project or as may be requested by HREC.
- (d) The HREC retains the right to:
  - (i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,
  - (ii) Request for an ethical compliance report at any point during the course of the research;
  - (iii) Cognizance and the observation of Namibia's Research Science and Technology Act, 2004 which makes it compulsory for Non-Namibian based researchers to obtain the compulsory Research Permit from the National Commission on Research Science and Technology (NCRST), FIRST, BEFORE the research can commence.

HREC wishes you the best in your research.

Dr. JE de Villiers: HREC Chairperson

A handwritten signature in black ink, appearing to be 'JE de Villiers', written over a horizontal line.

Ms. P. Claassen: HREC Secretary

A handwritten signature in black ink, appearing to be 'P. Claassen', written over a horizontal line.

## Appendix 2: Permission request letter to conduct study from MoHSS



### REPUBLIC OF NAMIBIA

#### *Ministry of Health and Social Services*

Private Bag 13198  
Windhoek  
Namibia

Ministerial Building  
Harvey Street  
Windhoek

Tel: 061 – 203 2507  
Fax: 061 – 222558  
E-mail: [itashipu87@gmail.com](mailto:itashipu87@gmail.com)

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#### OFFICE OF THE EXECUTIVE DIRECTOR

Ref: 17/3/3 MNH  
Enquiries: Mr. A. Shipanga

Date: 22 January 2021

Mr. Michael Nicolaas Hough  
PO Box 680  
Okahandja  
Namibia

Dear Mr. Hough

**Re: Investigating the influence of leadership styles on work stress, job satisfaction and work engagement of health care professionals within the Khomas Region, Namibia.**

1. Reference is made to your application to conduct the above-mentioned study.
2. The proposal has been evaluated and found to have merit.
3. **Kindly be informed that permission to conduct the study has been granted under the following conditions:**
  - 3.1 The data to be collected must only be used for academic purpose;
  - 3.2 No other data should be collected other than the data stated in the proposal;
  - 3.3 Stipulated ethical considerations in the protocol related to the protection of Human Subjects should be observed and adhered to, any violation thereof will lead to termination of the study at any stage;

*MS*



- 3.4 A quarterly report to be submitted to the Ministry's Research Unit;
  - 3.5 Preliminary findings to be submitted upon completion of the study;
  - 3.6 Final report to be submitted upon completion of the study;
  - 3.7 Separate permission should be sought from the Ministry for the publication of the findings.
- 
4. All the cost implications that will result from this study will be the responsibility of the applicant and **not** of the MoHSS.

Yours sincerely,

  
BEN NANGOMBE  
EXECUTIVE DIRECTOR



*"Health for All"*

### Appendix 3: Permission letter to respondents

## PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM



**TITLE OF THE RESEARCH PROJECT:** INVESTIGATING THE INFLUENCE OF LEADERSHIP STYLES ON WORK STRESS, JOB SATISFACTION AND WORK ENGAGEMENT OF HEALTH CARE PROFESSIONALS WITHIN THE KHOMAS REGION, NAMIBIA

**REFERENCE NUMBER:** FHSS06/19/2020

**PRINCIPAL INVESTIGATOR:** MICHAEL NICOLAAS HOUGH

**ADDRESS:** PO BOX 680 OKAHANDJA

**CONTACT NUMBER:** 0816129448

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the study staff any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the Research Ethics Committee at The University of Namibia and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and Namibian National Research Ethics Guidelines.

### 1. What is this research study all about?

- a) *Investigating the influence of leadership styles on work stress, job satisfaction and work engagement of health care professionals within the Khomas region, Namibia*

- b) *This project aims to investigate the influence that leadership styles have on you, related to your work stress, job satisfaction and work engagement*
- c) *You will be provided with a questionnaire which should be completed as honestly as possible. This questionnaire will gauge your leadership style, level of work stress, job satisfaction and work engagement.*

**2. Why have you been invited to participate?**

- a) You are invited to participate in this study because you currently work at one of the chosen medical facilities.

**3. What will your responsibilities be?**

- a) As a participant you are required to be as honest as possible. Please complete the questionnaire fully.

**4. Will you benefit from taking part in this research?**

- a) This study may not benefit you directly. However, future recommendations towards the organisation may have a beneficial influence on yourself, colleagues and/or work environment.

**5. Are there in risks involved in your taking part in this research?**

There are no risks for you as a participant.

**6. If you do not agree to take part, what alternatives do you have?**

*This study does not provide any alternatives. However, you have the right to not participate in the study or cease to participate at any time.*

**7. Will you be paid to take part in this study and are there any costs involved?**

No payment will be made to any participant and there are no costs involved in participation.

**8. Is there anything else that you should know or do?**

- a) *You can contact the Centre for Research and Publications at +264 061 2063061; [pclaassen@unam.na](mailto:pclaassen@unam.na) if you have any concerns or complaints that have not been adequately addressed by the investigator.*
- b) *You will receive a copy of this information and consent form for your own records.*

**11. Declaration by participant**

By signing below, I ..... agree to take part in a research study entitled *INVESTIGATING THE INFLUENCE OF LEADERSHIP STYLES ON WORK STRESS, JOB SATISFACTION AND WORK ENGAGEMENT OF HEALTH CARE PROFESSIONALS WITHIN THE KHOMAS REGION, NAMIBIA*

**I declare that:**

- a) I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- b) I have had a chance to ask questions and all my questions have been adequately answered.
- c) I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- d) I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- e) I may be asked to leave the study before it has finished, if the study doctor or researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) ..... on (*date*) ..... 2021.

.....  
Signature of participant

.....  
Signature of witness

**12. Declaration by investigator**

I (MICHAEL NICOLAAS HOUGH) declare that:

- I explained the information in this document to .....
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did not use an interpreter.

Signed at (*place*) ..... on (*date*) ..... 2021.

.....  
Signature of investigator

.....  
Signature of witness

## Appendix 4: Research questionnaire

### **SECTION A: BIOGRAPHICAL QUESTIONNAIRE**

*(Please tick the most appropriate response)*

**1. Sex:**

Male  Female

**2. Age (years):**

1. 20-24	
2. 25-30	
3. 31-35	
4. 36-40	
5. 41-45	
6. 46-50	
7. 51 and older	

**3. Total number of years in the nursing profession:**

1. Less than 1	
2. 1-2	
3. 3-4	
4. 5-6	
5. 7-8	
6. 9-10	
7. 11-15	
8. 16 and more	

**4. Marital status:**

1. Single	
2. Married	
3. Divorced	
4. Widowed	

**5. Number of dependents (children):**

1. None	
2. 1-2	
3. 3-4	
4. 5-6	
5. 7-9	
6. 10 and more	

**6. Highest qualification obtained:**

1. Grade 12	
2. Certificate	
3. Diploma	
4. Degree	
5. Honors Degree	
6. Master's Degree	
7. PhD degree	

**7. Position:**

1. Enrolled nurse	
2. Registered nurse	
3. Registered Occupational Therapist	
4. Registered Physiotherapist	
5. Medical practitioner and / or specialists	

**Section B: Leadership Questionnaire**

When you answer this section think about a leader you work closely with. This questionnaire is used to describe the leadership style of the individual as you perceive it. Use the following rating scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

**The Person I Am Rating. . .**

1. Provides me with assistance in exchange for my efforts.	0	1	2	3	4
2. *Re-examines critical assumptions to question whether they are appropriate	0	1	2	3	4
3. Fails to interfere until problems become serious	0	1	2	3	4
4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards	0	1	2	3	4
5. Avoids getting involved when important issues arise	0	1	2	3	4
6. Is absent when needed	0	1	2	3	4
7. *Seeks differing perspectives when solving problems	0	1	2	3	4
8. *Talks optimistically about the future.	0	1	2	3	4
9. Discusses in specific terms who is responsible for achieving performance targets	0	1	2	3	4
10. Waits for things to go wrong before taking action	0	1	2	3	4
11. *Talks enthusiastically about what needs to be accomplished	0	1	2	3	4
12. *Spends time teaching and coaching	0	1	2	3	4
13. Makes clear what one can expect to receive when performance goals are achieved	0	1	2	3	4
14. Shows that he/she is a firm believer in "If it ain't broke, don't fix it."	0	1	2	3	4
15. *Treats me as an individual rather than just as a member of a group	0	1	2	3	4
16. Demonstrates that problems must become chronic before taking action.	0	1	2	3	4
17. Concentrates his/her full attention on dealing with mistakes, complaints, and failures	0	1	2	3	4
18. Keeps track of all mistakes	0	1	2	3	4
19. *Articulates a compelling vision of the future	0	1	2	3	4
20. Directs my attention toward failures to meet standards	0	1	2	3	4
21. Avoids making decisions	0	1	2	3	4



22.*Considers me as having different needs, abilities, and aspirations from others	0	1	2	3	4
23.*Gets me to look at problems from many different angles	0	1	2	3	4
24.*Helps me to develop my strengths	0	1	2	3	4
25.*Suggests new ways of looking at how to complete assignments	0	1	2	3	4
26.Delays responding to urgent questions	0	1	2	3	4
27.Expresses satisfaction when I meet expectations	0	1	2	3	4
28.*Expresses confidence that goals will be achieved	0	1	2	3	4

## SECTION C: WORK STRESS

Please indicate how much you disagree or agree with the following statements.

1 = Does not apply/Totally disagree					
3 = Applies half the time/ Agree sometimes					
5 = Always applies/ Totally agree					
1. I feel like I can be myself at my job	1	2	3	4	5
2. At work, I often feel like I have to follow other people's commands	1	2	3	4	5
3. If I could choose, I would do things at work differently	1	2	3	4	5
4. The tasks I have to do at work are in line with what I really want to do	1	2	3	4	5
5. I feel free to do my job the way I think it could best be done	1	2	3	4	5
6. In my job, I feel forced to do things I do not want to do	1	2	3	4	5
7. I feel like I can be myself at my job	1	2	3	4	5
8. At work, I often feel like I have to follow other people's commands	1	2	3	4	5
9. If I could choose, I would do things at work differently	1	2	3	4	5
10. The tasks I have to do at work are in line with what I really want to do	1	2	3	4	5
11. I feel free to do my job the way I think it could best be done	1	2	3	4	5
12. In my job, I feel forced to do things I do not want to do	1	2	3	4	5

1- Never; 2- Some of the time; 3- Most of the time; 4- Always				
13. Do you have too much work to do?	1	2	3	4
14. Do you work under time pressure?	1	2	3	4

15. Do you have to be attentive to many things at the same time?	1	2	3	4
16. Do you have to give continuous attention to your work?	1	2	3	4
17. Do you have to remember many things in your work?	1	2	3	4
18. Are you confronted in your work with things that affect you personally?	1	2	3	4
19. Do you have contact with difficult people in your work?	1	2	3	4
20. Does your work put you in emotionally upsetting situations?	1	2	3	4
21. Do you need to be more secure that you will still be working in one year's time?	1	2	3	4
22. Do you need to be more secure that you will keep your current job in the next year?	1	2	3	4
23. Do you need to be more secure that next year you will keep the same function level as currently?	1	2	3	4

#### SECTION D: JOB SATISFACTION SCALE

	PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT.	Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
1	I feel I am being paid a fair amount for the work I do.	1	2	3	4	5	6
2	There is really too little chance for promotion on my job.	1	2	3	4	5	6
3	My supervisor is quite competent in doing his/her job.	1	2	3	4	5	6
4	I like the people I work with.	1	2	3	4	5	6
5	I sometimes feel my job is meaningless.	1	2	3	4	5	6
6	Raises are too few and far between.	1	2	3	4	5	6

7	Those who do well on the job stand a fair chance of being promoted.	1	2	3	4	5	6
8	My supervisor is unfair to me.	1	2	3	4	5	6
9	I find I have to work harder at my job because of the incompetence of people I work with.	1	2	3	4	5	6
10	I like doing the things I do at work.	1	2	3	4	5	6
11	I feel unappreciated by the organization when I think about what they pay me.	1	2	3	4	5	6
12	People get ahead as fast here as they do in other places.	1	2	3	4	5	6
13	My supervisor shows too little interest in the feelings of subordinates.	1	2	3	4	5	6
14	I enjoy my coworkers.	1	2	3	4	5	6
15	I feel a sense of pride in doing my job.	1	2	3	4	5	6
16	I feel satisfied with my chances for salary increases.	1	2	3	4	5	6
17	I am satisfied with my chances for promotion.	1	2	3	4	5	6
18	I like my supervisor.	1	2	3	4	5	6
19	There is too much bickering and fighting at work.	1	2	3	4	5	6
20	My job is enjoyable.	1	2	3	4	5	6

### **SECTION E: WORK ENGAGEMENT**

The following 9 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.

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