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# **Testing the Job Demands-Resources Model of Work Engagement with a sample of Corrections Officers working within New Zealand**

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## **Abstract**

The aim of the research was to test the motivational process of the Job Demands-Resources (JD-R) model of Work Engagement using a sample of 157 Corrections Officers working within the central region of New Zealand. The JD-R model assumes that a variety of important job resources are positively related to work engagement, especially when job demands are high, and that the relationship between job resources and organisational outcomes is mediated by work engagement.

Results of a two-way ANOVA revealed a significant relationship between job resources and work engagement, regardless of whether demands were high or low. Additionally, mediated regression analyses revealed the positive association between job resources and organisational outcomes was partially mediated by work engagement. Results provide partial support for the JD-R model of work engagement using a sample of Corrections Officers. In addition, results provide support for the importance of job resources in the workplace and the central concept of work engagement. Not only is this a valuable area of research for employee well-being, it also has positive implications for organisational success. Practical implications and limitations of the research are discussed.

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# Introduction

## Definition of Work Engagement

While research regarding a range of negative states relevant to Organisational Psychology has been thoroughly explored, there has been less emphasis on the positive states and gaining a greater understanding of mental wellness. The purpose of positive psychology is to shift the focus from solely investigating the negative states resulting from stress and burnout, into a more balanced view where there is emphasis on building and developing positive qualities in employees (Seligman, 2000, p.5). If we are to gain a full understanding of the work environment and its outcomes we must place equal importance on the precursors and outcomes of both the negative and positive states present within the work environment.

Burnout has a significant presence within the literature around work stress, due to the impact it has on both employee well-being and organisational outcomes. However, work engagement, which is considered the positive antipode of burnout, has an equally important place in the literature, particularly as modern organisations have expectations of their employees to be highly committed, motivated and dedicated to high quality performance (Bakker, Schaufeli, Leiter & Taris, 2008).

The earliest concept of engagement includes personal engagement and was introduced by Kahn in 1990 and was based on the view that concepts such as organisational commitment and job involvement were too far removed from the actual realities of day-to-day experiences within employees work roles. Kahn (1990) defines engagement as the involvement of employees' in their work roles - physically, emotionally and psychologically - to the point where they have a strong emotional connection and identification with their work. More recently, Schaufeli and Bakker (2004) define work engagement as "a positive, fulfilling, work-related state of mind characterised by vigour, dedication and absorption" (p.295), which is measured independently from burnout. In summary, engaged employees have high levels of energy, they are enthusiastic about their work and they are often so immersed in their roles that time flies by (May, Gilson & Harter, 2004)



## **The Importance of Work Engagement**

There are practical and humanistic reasons for organisations to be concerned with employees' engagement as it is not only linked to organisational advantages such as employee turnover and customer satisfaction and loyalty, but also to personal fulfilment for employees. While previous research has come a long way in identifying correlates of engagement, there has been little research examining the role of engagement as a mediator linking employee characteristics and organisational factors to employee job performance (Rich, Lepine & Crawford, 2010). Rich et al argue that this is not surprising due to the relatively new introduction of work engagement to the literature. However, Kahn (1990) originally described engagement as being an influential motivational concept suggesting a linkage between engagement and job performance (Rich et al, 2010) and the results so far look promising.

Previous results suggest that employees who feel vital and strong, and are enthusiastic about their work receive higher ratings from their colleagues on in-role and extra-role performance (Bakker, Demerouti & Verberke, 2004). Kahn (1990) did not specifically outline a relationship between engagement and job performance; however, Rich et al (2010) argue there are strong theoretical reasons to believe that the link exists. Essentially, employees who are highly engaged in their work roles are not only focused on their efforts in pursuing role-related goals, they are also emotionally and cognitively connected to the efforts needed to get there (Ashforth & Humphrey, 1995; Kahn, 1990). In contrast, a disengaged employee appears emotionally and cognitively withdrawn from work.

Theoretical research has linked three energies associated with engagement (physical, cognitive and emotional) and found that physical energy contributes to work goals because it facilitates the accomplishment of organisationally valued behaviours over an extended period of time. Cognitive energy contributes to work goals in the sense that it promotes behaviour that is more attentive and focused, resulting in higher levels of achievement, while emotional energy contributes to work goals by the positive relationships engaged employees create with their co-workers and their ability to manage the emotional demands associated with the role (Kahn, 1990, 1992).

Schaufeli and Bakker (2004) note that engaged employees are more likely to have a greater attachment to their organisation and a lower tendency to leave their organisation. Various studies have demonstrated positive relationships between work engagement and meaningful organisational outcomes such as in and extra-role behaviour (Halbeslen &

Wheeler, 2008), intention to leave and organisational commitment (Schaufeli & Bakker, 2004). Further, Bakker et al (2004) showed that engaged employees received higher ratings from their colleagues on performance and their dedication to the organisation. Bakker (2004) states the four major reasons why engaged employees perform better than non-engaged employees are due to the fact that engaged employees often experience positive emotions, including happiness, joy and enthusiasm. They experience better psychological and physical health, create their own job and personal resources (e. g. support from others) and they transfer their engagement to others around them.

### **Aims of the Study**

Essentially, for organisations to be successful, they need to ensure they work towards high levels of employee engagement, and to do this, there is a need to explore organisational factors that positively relate to high levels of work engagement. The aim of the following research is to test the Job Demands-Resources model (JD-R) of work engagement (Demerouti & Bakker, 2008) using a sample of Corrections Officers working in New Zealand. The JD-R model proposes that the availability of resources will motivate employees, leading to increased work engagement, resulting in enhanced performance. Specifically, resources are a key component when investigating the concept of work engagement, therefore, organisations must arrange working conditions with sufficient motivating and energising resources (Salanova & Schaufeli, 2006).

It is a well-known assumption that Corrections Officers work in a particularly stressful environment; however, there has been limited research around how they cope with their job demands. Corrections Officers play an important role in protecting society and recently they have become more involved in the rehabilitation of offenders, therefore, it is imperative they are provided with the necessary resources to cope with these demands. Further, the responsibilities of the officers require high levels of engagement as they have a direct influence on the successful rehabilitation of offenders. The aim of this study is to explore the JD-R model. The first area of interest is whether job resources including supervisor support, autonomy, performance feedback and development opportunities are related to work engagement, in turn, leading to positive organisational outcomes. The second area of interest is whether these resources will be positively related to work engagement, particularly when perceived job demands are high.

# **The History of Work Engagement**

## **Burnout**

Much of the research focusing on work engagement has stemmed from the literature based on the concept of burnout; therefore, it is important to understand the history of burnout and its relationship with work engagement. Herbert Freudenberger (1974) introduced the term “burnout” in the mid-1970’s where he used it to describe the symptoms of the loss of motivation and commitment among a group of volunteers working in an alternative care setting. Originally, burnout was thought to be a work-related stress syndrome that was only observed among only those who do “people work”. However, more recently, research has shown that the core dimensions of burnout – exhaustion and cynicism, or disengagement from work can be observed in virtually any occupational setting (Bakker, Demerouti & Schaufeli, 2002; Demerouti et al, 2001).

Burnout is essentially a reaction to chronic occupational stress, resulting in emotional exhaustion, cynicism and a lack of professional efficacy (Gonzalez-Roma, 2006). Burnout is often a process that happens gradually over time. Schaufeli & Enzmann (1998) state that the first stage is the imbalance between work resources and demands (stress) that eventually result in the depletion of one’s ability to cope.

## **Components of Burnout**

Exhaustion refers to feelings of being overextended resulting in the depletion of one’s emotional and physical resources. Cynicism refers to a disconnected attitude towards one’s work, which occurs when work has lost meaning. Thirdly, reduced efficacy refers to a feeling of inadequacy and incompetence and a lack of productivity within the organisation (Maslach, Schaufeli & Leiter, 2001). According to Maslach (2003), the three dimensions of burnout are related to workplace variables in different ways. Exhaustion and cynicism tend to emerge from the presence of work overload and social conflict, while the sense of inefficacy is more a consequence of not having the right resources available to get the job done (e. g. lack of necessary tools, or insufficient time).

Maslach (2003) argues that combinations of these three components may result in different patterns of work experience and the risk of burnout. For example, she states that a particular job may involve several difficult working relationships with co-workers, which can result in cynicism and exhaustion, however, the role may provide a good opportunity to achieve success, resulting in efficacy. Further, a different job may involve a

number of job demands that could result in cynicism and exhaustion but a lack of clear goals may result in a sense of inefficacy. This emphasises the complexity of the work environment and the different impact it can have on different people, suggesting that effective interventions should revolve around assessing what changes will reduce the risk of exhaustion and what changes will promote the sense of efficacy (Maslach, 2003).

### **Precursors of Burnout**

Burnout has also been described as a process of increased disillusionment or “a progressive loss of idealism, energy, and purpose experienced by people in the helping professions as a result of conditions in their work” (Edelwich & Brodsky, 1980, p.14 cited from Schaufeli & Bunnk, 2003). Burnout has been linked to the ongoing presence of demands that have turned into job stressors over time. Job demands are present in all occupational contexts, for example, emotionally demanding interactions with clients or high levels of work pressure are considered demands. However, they have the potential to turn into job stressors when high levels of effort are required to cope with them from which the employee has not adequately recovered. Essentially, prolonged exposure to a demanding work environment can turn common job demands into job stressors (Bakker & Demerouti, 2006).

A generally accepted concept within organisational psychology is that job stressors tend to reduce an individual’s ability to control their work environment, and to work efficiently and effectively (Bakker et al, 2004). Therefore, burnout is a long-term consequence of prolonged stressors that the employee does not have the power to change or manage. A review of stress by Khan (1992) identifies several categories of work-related stressors including work deprivation, such as the loss of job security. Additionally, occupational characteristics including properties that are intrinsic to the work itself, such as lack of autonomy and role characteristics, for example role conflict, role ambiguity and role overload.

Other categories identified as common stressors in the work environment include interpersonal relationships, lack of resources and equipment, challenging work schedules and a difficult organisational climate. While job stressors may not necessarily be negative, over time and without the appropriate coping mechanisms, job stressors have the potential to lead to burnout.

## **Individual and Organisational Consequences of Burnout**

Burnout has been acknowledged as a practical concern for organisations due to its association with negative organisational outcomes and decreases in employee well-being. The components of burnout have been linked with a variety of mental and physical health problems including depression, irritability, helplessness, anxiety, fatigue and insomnia (Cordes & Dougherty, 1993). Attitudinal consequences have also been identified including the development of negative attitudes toward the clients, the job and the organisation. Organisational outcomes that have been linked to burnout include turnover, absenteeism, and decreases in work performance.

Studies of police workers revealed that individuals reporting higher levels of the burnout components were more likely to report intentions to leave their jobs (Jackson & Maslach, 1982). Further, Jackson and her colleagues found that teachers reporting intentions to leave were also associated with high levels of the burnout components, particularly emotional exhaustion. They suggest that burnout could also lead to the deterioration of client service and care and it has been shown to correlate with self-reported activities of personal dysfunction including increased alcohol and drug use and family problems.

## **The Emergence of Work Engagement**

Work engagement has been defined as the opposite of burnout while others describe it as more of a motivational state felt by employees. Maslach and Leiter (2006) argues that regardless of the way it is viewed, one of the most important implications of the research on engagement is that interventions may be more effective if they are framed in terms of building engagement rather than reducing burnout.

Engaged employees work hard, they are happily engrossed in their work and they are fully involved in their work tasks. For them, work is enjoyable and they work hard because they find satisfaction in their tasks, not because they are consumed by it (Bakker et al, 2008). Structured qualitative interviews conducted by Schaufeli et al (2006) with a group of Dutch employees from different occupations who scored highly on the Utrecht Work Engagement scale, described engaged employees as having high self-efficacy and a positive outlook on their work and personal lives. They considered work to be enjoyable and interesting in the sense that they have a life outside of work; however, when they are at work they are fully immersed in their tasks.

Supporting these findings are results from Engelbrecht's (2006) qualitative research looking at how engagement translates into behaviour using a sample of Danish midwives.

Participants were required to describe a highly engaged colleague and the common characteristics included someone who radiated energy and kept up the spirit in the ward, especially in situations where work morale was low. Specifically, they had a positive attitude towards their role and the love for their job was expressed through the passion with which they fulfilled their daily tasks. In addition to the normal tasks of a midwife, they were also involved in other job-related but voluntary activities at the ward (Bakker et al, 2008).

Schaufeli et al (2004) state that engagement is not simply a momentary and specific state but more of a persistent state that is not related to any particular event, individual or behaviour. Within the literature, work engagement has commonly been described as related to other concepts including organisational commitment and job involvement, however, research suggests they can be considered as distinct concepts.

Engagement differs from organisational commitment in the sense that commitment refers to a person's attitude and attachment to the organisation, although, engagement is not an attitude, it is the extent to which an individual is absorbed and dedicated to their job performance. Engagement also differs from job involvement in the sense that job involvement relates to the cognitive perception that the role satisfies their personal needs, however, engagement relates to how individuals employ themselves in their performance, cognitively, emotional and behaviourally (Saks, 2006). Essentially, as stated by Ashforth & Humphrey (1995), strong motivation and psychological involvement cannot be obtained without an emotional connection to the work and this involves the hands and the head of the individual, as well as the heart.

### **Work Engagement - Opposite to Burnout**

Maslach and Leiter (1997) state, engagement refers to energy, involvement, and professional efficacy which are considered to be direct opposites of burnout dimensions (i.e. exhaustion, cynicism, lack of professional efficacy) (p. 102, cited from Schaufeli et al, 2002). They argue that in the presence of burnout, energy turns into exhaustion, involvement into cynicism and efficacy into ineffectiveness. Therefore, engagement is assessed using the opposite pattern of scores on the measure of burnout, low scores on exhaustion and cynicism and high scores on professional efficacy. This concept argues that burnout and engagement exist on the same continuum, with burnout at one end and engagement at the other and employees are thought to be somewhere along this continuum at any given point in time (Maslach & Leiter, 1997).

## **Work Engagement – Parallel and Separate from Burnout**

In contrast to Maslach and Leiter's concept, Schaufeli et al (2002) view burnout and engagement as independent and distinct constructs, which deserve independent assessment from one another. While they acknowledge that engagement and burnout are experienced as opposite psychological states, they argue that employees do not necessarily need to experience one or the other. They consider engagement to be a unique concept that is negatively related to burnout and characterised by absorption, vigour and dedication.

Absorption refers to a state where employees are totally immersed in their tasks and feel a strong attachment to their work (Schaufeli et al, 2002; Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2002). Absorption has been described as similar to flow (Llorens et al, 2007) which occurs in situations where individuals have found a healthy balance between the challenges of the job (job demands) and their professional skills necessary to manage it. According to Salanova et al (2005) absorption consists of being fully "concentrated, happy and deeply engrossed in one's work" (p1217).

Vigour refers to a state where employees are motivated by their job and are likely to remain persistent and determined to work through any issues or difficulties that arise at work (Schaufeli et al, 2006).

Dedication is "characterised by a strong psychological involvement in one's work, combined with a sense of significance, enthusiasm, inspiration, pride and challenge" (Schaufeli et al, 2002 p. 166). This dimension of work engagement can be observed in someone who finds their job motivating and challenging and someone who is committed to their work and to the organisation as a whole, making them less inclined to leave (Hallberg & Schaufeli, 2006).

According to Schaufeli and Bakker (2004), research on burnout showed that some employees were not experiencing burnout regardless of high job demands and long working hours. Instead, it seemed they actually found enjoyment in working hard and dealing with job demands. They argued that this might be seen as workaholism if one was focusing on human deficiencies as opposed to strengths. Therefore, they asked whether there are engaged employees who show energy, dedication and absorption in their work, essentially employees who show behaviour that is the opposite of burnout. Although Schaufeli and Bakker (2001) also regard burnout and engagement as opposites, they believe that the two concepts should be measured independently because feeling

emotionally drained from work one day does not necessarily mean that you could not also feel bursting with energy the next day (Schaufeli and Bakker, 2002).

### **Factors Giving Rise to Work Engagement**

A qualitative study conducted by Kahn (1990) revealed three psychological conditions from which people engage or disengage at work; including psychological meaningfulness, psychological safety and psychological availability.

Psychological meaningfulness involves employees perceiving they are receiving a return on their investment in their work performance (Kahn, 1990). These returns might include having a job that allows variety and provides a challenge, enables good professional and personal relationships with colleagues and supervisors and allows one to feel valued within their role (Freeney & Tiernan, 2006). Return on investment is based on the view that positive emotions result when basic needs are met in the workplace. They argue that without fulfilment of these needs, negative emotions such as boredom and resentment may occur, resulting in the employee focusing on the need to get through the day as opposed to thinking how they can contribute to the success of the organisation (Harter et al, 2004).

Harter et al (2004) believe that when people feel they have input in the decision making process and that their thoughts and views are heard, this creates a sense of meaning and purpose and they feel as though they are contributing to a meaningful mission or purpose giving them a greater sense of ownership of their work.

Psychological safety involves employees perceiving a sense of feeling comfortable enough within the work environment to be able to express themselves without fearing a negative response in return (Kahn, 1990). Much of this is dependent on the level of trust present in employees' relationships to those at a managerial level and the support available to them at the organisational level (Freeney & Tiernan, 2006). Psychological availability refers to a sense of possessing the appropriate physical, emotional and psychological resources needed to invest oneself in the work role. Essentially, when an individual finds meaning within their work, feels safe within their work environment and perceives they have the necessary resources to perform their tasks, they are fully engaged in their role (Kahn, 1992).



## **Job Demands and Resources**

In order to feel engaged in one's work it is imperative that employees are provided with the appropriate job resources to perform their tasks successfully and to cope with the demands of the role. Bakker and Demerouti (2008) state that during the past three decades, many studies have shown that job characteristics have a profound impact on employee well-being (eg burnout, work engagement). For example, job demands such as work overload and role ambiguity may lead to sleep deprivation, exhaustion and health impairment (Halbesleben and Buckley, 2004), while, job resources such as social support and autonomy may initiate a motivational process leading to work engagement and organisational commitment (Demerouti et al, 2001).

Bakker & Demerouti (2008) have shown that social support, autonomy, development opportunities and performance feedback are all job resources positively associated with work engagement for a range of occupations. In summary, employee engagement is a desirable condition that has organisational benefits and implies commitment, passion, enthusiasm and focused effort and energy (Macey & Schneider, 2008). The antecedents of these attitudes and behaviours are located in the working conditions and are thought to have a significant contribution to organisational effectiveness.

Resources have been defined as "...those objects, personal characteristics, conditions or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions or energies" (Hobfoll, 1989, p.516). Essentially, organisational resources are an important part of every employees work life as they are the aspects of the work role that are instrumental in achieving work goals and reducing job demands and their associated costs as well as stimulating growth and development (Demerouti, Bakker, Nachreiner & Schaufeli, 2001).

Bakker et al (2003) define job demands as the physical, organisational and social factors of the job that require physical and psychological effort, which is linked to increased strain. It has been argued that job demands are likely to result in specific strain reactions including stress, while the lack of resources is more likely to hinder goal accomplishment, resulting in feelings of frustration and a sense of failure, in turn, leading to negative attitudes and withdrawal from the work environment.

Job resources are assumed to play an intrinsic motivational role in encouraging and nurturing employees' learning and development and fulfilling basic human needs (Bakker et al, 2008). For example, development opportunities foster learning, and social support fosters the need to belong. Job resources also play an extrinsic motivational role in

facilitating employees in achieving work goals because work environments that offer many resources foster the dedication and commitment of employees in achieving their work objectives (Meijman & Mulder, 1998). Essentially, the more resources available to employees, the more likely they are to be successful in achieving their work roles, resulting in higher levels of engagement (Schaufeli and Bakker, 2004; Schaufeli and Salanova, 2008).

Results from a study conducted by Xanthopoulou et al (2008) support this assumption, stating that employees who experienced autonomy at work, had supportive colleagues and supervisors, received proper feedback and training and had opportunities for professional development, as well as perceiving that they had the necessary means and the motivation to fulfil their work goals (Bakker & Demerouti, 2007). When the employee feels as though they are receiving the necessary resources in order to successfully carry out their tasks, they are more likely to reciprocate by showing higher levels of engagement (Saks, 2006).

Hakanen, Bakker, & Schaufeli (2006) provided further evidence for this relationship among Finnish teachers, showing that several job resources such as job control, supervisor support and a good organisational climate, were positively associated with work engagement. Therefore, job resources are not only necessary in dealing with high job demands, they also have their own influential role within the work context.

## **The Job Demands-Resources Model**

The foundation of the JD-R model rests on the belief that every occupation has specific and unique characteristics associated with job stress. However, these characteristics can be classified into two broad categories; job demands and job resources, creating a global model that can be applied to a wide range of organisational settings (Bakker et al, 2003, Demerouti et al, 2001).

The second assumption of the JD-R model is that two underlying processes influence the development of job strain and motivation. The first process refers to the development of job strain where chronic job demands exhaust employees energy levels resulting in the depletion of resources. For example, a poorly defined job or work overload would exhaust employees mental and physical resources, leading to the depletion of energy and resulting in burnout and health problems (Demerouti et al, 2000).

The second process refers to the motivational function of job resources in either fostering the growth and development of employees or facilitating the achievement of work goal and assumes that job resources are linked to organisational outcomes through the principal effect of work engagement. Evidence for this dual process was found in a study conducted by Hakanen et al (2006) among Finnish teachers where burnout mediated the effect if job demands on ill health and work engagement mediated the impact of job resources on organisational commitment.

According to Bakker and Demerouti (2007), empirical evidence is supportive of the idea that job demands and resources create two separate processes with demands linked to strain and resources to motivation. However, in addition to the main effects of demands and resources, an important concept within the JD-R model is the interaction between the two components.

Combining these processes leads to the assumption that when both demands and resources are high, employees are expected to develop high levels of strain and motivation and when both are low, strain and motivation is expected to be absent. Subsequently, the high demands-low resources condition should result in high levels of strain and low levels of motivation while the low demands-high resources condition should result in low levels of strain and high levels of motivation (See figure 1.)

Resources	High	Low strain High motivation	High strain High motivation
	Low	Low strain Low motivation	High strain Low motivation
		Low	High
		Demands	

*Figure 1:* Predictions of the Job Demands-Resources model based on all possible combinations (Bakker and Demerouti, 2006).

### **The Buffer Effect of Job Resources**

The model proposes that job resources may buffer the negative impact of job demands on job strain, including burnout (Bakker et al, 2003). The demands and resources associated with a certain organisation depends on the specific characteristics that exist with the occupational group and the JD-R model proposes that many different types of job demands and resources interact in predicting job strain.

Kahn and Byosiere (1992) support this assumption stating that the buffering resource can reduce the presence of the stressor and can alter the general perceptions toward the stressor. Further, they can moderate the response to the stressor, reducing the damaging health issues resulting from the demand. For example, performance feedback can act as a buffer on job strain as it fosters the learning and development of an employee as well as creating clear and open lines of communication between the employee and the supervisor, while job autonomy provides more opportunities to manage the stressful situation arising from the demand (Bakker and Demerouti, 2007).

Previous studies that have focused specifically on the buffer effect of job resources on their relationship between job demands and well-being, found clear evidence for the interaction. A study conducted by Bakker (2008) assessing a sample of 1,000 employees of a large institution, found that a combination of low job resources and high job demands

were more likely to result in burnout. However, work overload and emotional demands did not lead to burnout if employees perceived autonomy, feedback, social support and a positive relationship with their supervisor were available to them. Xanthopoulou et al (2006) also found similar results in their study of home care organisations where autonomy proved to be the most important buffer of job demands for burnout, followed by social support and opportunities for professional development. More specifically, when the levels of job resources were high, the effect of job demands on the core dimensions of burnout decreased significantly and engagement levels increased.

### **The Salience of Job Resources in the Presence of High Job Demands**

The final proposition of the JD-R model is that job resources particularly influence work engagement when job demands are high, implying that job resources provide employees with the necessary tools to manage their demands and achieve their goals. According to the Conservation of Resources model (Hobfoll, 1989) people strive to retain, protect and build resources and what is threatening to them is the potential or actual loss of these valued resources. The theory is based on the view that individuals seek to gain and maintain resources that they consider to be important in creating a successful and enjoyable environment and when these resources are threatened their stress levels increase significantly (Hobfoll, 1989). Therefore, resources are viewed as the single necessary component in understanding stress and resource gain acquires its significance in the context of resource loss. This implies that job resources are most beneficial in maintaining work engagement when employees are confronted with high job demands (Bakker and Demerouti, 2007).

Previous studies have supported this assumption including Hakanen et al (2007) who tested this interaction hypothesis with a sample of Finnish dentists. It was hypothesised that job resources would be most beneficial in maintaining work engagement under conditions of high demands. Results supported this assumption, revealing that variability in professional skills boosted work engagement when qualitative workload was high and lessened the negative effect of qualitative workload on work engagement. Additionally, Schaufeli et al (2010) found that task enjoyment and organisational commitment are the result of combinations of many different job demands and job resources. Specifically, enjoyment and commitment were high when employees were confronted with challenging and stimulating tasks as well as having access to sufficient resources.

## The Job Demands-Resources Model of Work Engagement

The aim of this study is to focus on aspects of the work environment that organisations can provide their employees in enhancing work engagement levels; therefore, the motivational process of the JD-R model is the sole focus of the study.

The precursors and consequences of work engagement have been combined into an overall model of work engagement (Figure 2) by Bakker & Demerouti (2008). Bakker and Demerouti draw on two assumptions from the JD-R model.

The first assumption is that job resources such as supervisor support, performance feedback, skill variety and autonomy start a motivational process that leads to work engagement, resulting in higher work performance.

The second assumption refers to the way job resources particularly influence work engagement when employees are faced with high levels of job demands. Figure 1 depicts the JD-R model of work engagement developed by Bakker and Demerouti (2008).

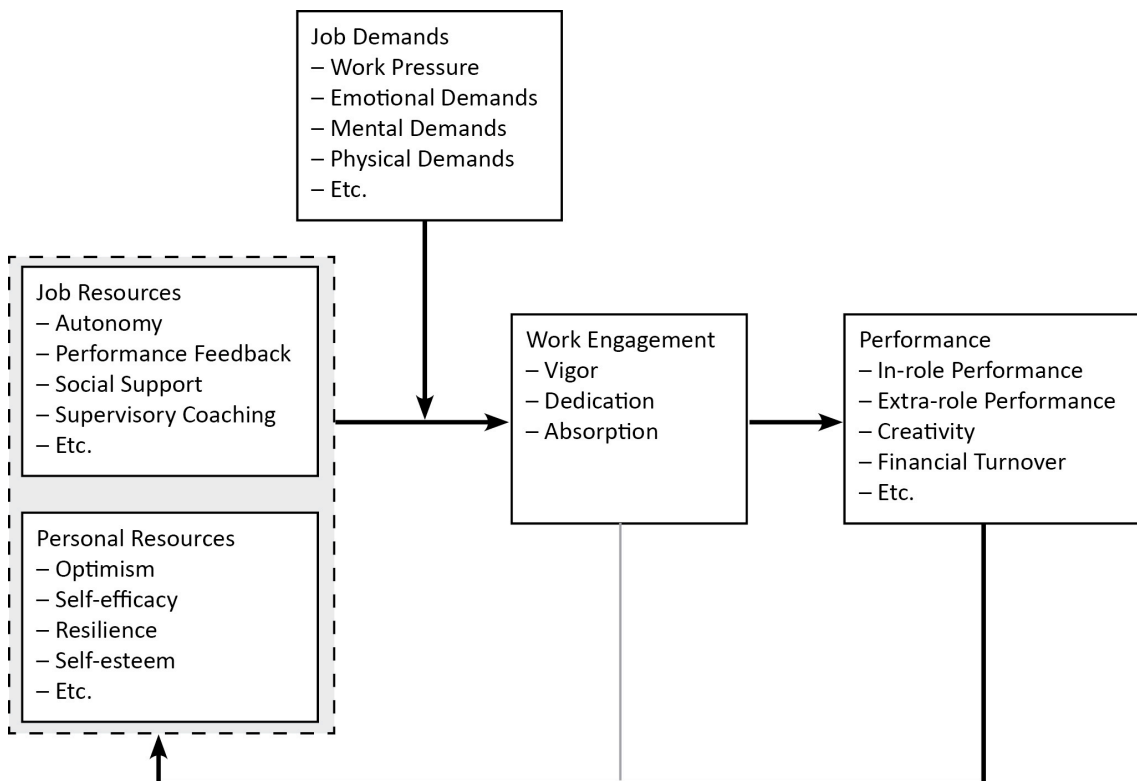


Figure 2. Job demands-resources model of work engagement based on Bakker & Demerouti (2008).

## **The Present Study**

The aim of this research study was to test the motivational process of the Job Demands-Resources (JD-R) model of work engagement among a sample of Corrections Officers working within the Central Region of New Zealand. The importance of work engagement has been widely recognised, at an individual and an organisational level. However, there has been less emphasis on how the organisation itself can facilitate engagement. It is important to gain a deeper understanding into the aspects of the role that enable employees to feel engaged.

### **Sample Group – Corrections Officers**

There is significant reason to be interested in Correctional Officer stress as it has the potential to lead to many negative outcomes including absenteeism (Lambert, 2009) burnout and increased sick leave (Finn, 1998). Previously, the role of Corrections Officers was to focus solely on the custodial duties and to maintain security within the prison. More recently, officers have started to play much more of an active role in the offenders rehabilitation by supporting the work completed in the offender rehabilitation programmes and by influencing and motivating offenders to make positive changes. Exploring the precursors and consequences of work engagement using a sample of Corrections Officers is important, as it is crucial that officers are provided with the appropriate resources necessary to carry out their tasks. Not only does this have an effect on the well-being of the officers themselves, it also leads to positive outcomes for the organisation.

Moon & Maxwell (2004) state that officers who are facing excessive levels of stress are more likely to experience physical illnesses, job burnout or experience job dissatisfaction. It is important to consider the effect this has on the officers themselves and also the indirect effect it has on the safety of the prison and the stress this causes for other staff members (Finn, 2000). The long-term effects can also be very damaging and prolonged exposure to certain stressors can result in burnout and can often lead to a tendency to treat offenders in a detached and mechanical manner, in turn, reducing the likelihood of an effective, successful relationship.

Blakely and Bumphus (2004) reported the majority (60-70%) of correctional staff turnover is voluntary and this is far more damaging than involuntary turnover due to the direct and indirect costs associated. Turnover intent is the cognitive process of thinking and wanting to leave their job and this is usually due to the employee feeling dissatisfied

with what their role offers. A national survey of correctional facilities in the United States reveals an average turnover rate among Corrections Officers of 16.2% with some states even reporting turnover rates as high as 38% (Corrections Compendium, 1996, cited from Schaufeli & Peeters, 2000). Not only does this result in time-consuming administration work, it also creates the need for constant and urgent recruitment of replacement officers resulting in much more work than necessary.

The majority of the turnover in the United States occurs in young inexperienced Corrections Officers within six months of first starting their job. Similarly, in Israel, 50% of the Corrections Officers leave this role within 18 months of being hired (Shamir & Drory, 1982). These results indicate the potentially damaging effect burnout can have at both the individual and the organisation level. Understanding the negative outcomes associated with prolonged stress and burnout emphasise the importance in exploring the concept of work engagement within the present organisational context.

A wide range of stressors has been identified in the literature around correctional officer stress; however, the greatest stressor appears to be the correctional organisation itself. As Brodsky noted the sources of stress cannot be solely “pinned to the characteristics of the individual employees alone but must also be seen as part and parcel of the structure and culture of the correctional institution” (1982, p. 83). These results emphasise the important role the organisation plays in ensuring their officers are provided with the appropriate resources in facilitating them to achieve their work goals.

The literature on correctional officer stress has revealed several common stressors that overlap into other occupational stress literature. These include role characteristics such as role overload and role conflict. According to Triplett et al (1996) there is evidence that a lack of resources, as indicated by role overload is problematic for both Corrections Officers as well as employees in other occupations. Administrative items such as the lack of clear guidelines and lack of autonomy were also present in the literature (Whitehead and Lindquist, 1988).

One of the most significant predictors of stress seen throughout the literature was personal safety. Specifically, officers who perceived their work environment to be relatively unsafe reported higher levels of stress. Triplett et al (1996) argued that while safety concerns are capable of creating high levels in stress for other occupations the impact is unlikely to be as high as it is for Corrections Officers.



Findings from Armstrong and Griffin (2004) revealed that correctional officers appeared to desire challenge, change and continued development of their career paths as opposed to constantly engaging in routine, repetitive tasks. Interestingly, findings from Armstrong and Griffin (2004) also revealed that the lack of organisational support proved to be a significant predictor of stress. Essentially, if employees felt that the organisation did not value their input, they reported higher levels of stress.

The fact that several similarities exist across occupational groups exist, suggests that it is useful to understand correctional officer stress in the context of the broader stress literature. While this does not mean that Corrections Officers do not face any unique sources of stress, Triplett et al (1996) argue that the importance lies in how employees may effectively cope with these demands. The present study drew from the stressors commonly reported with particular attention to administrative issues such as the lack of resources and development opportunities, personal safety concerns, a lack of career development and the lack of organisational support.

# Hypotheses

## Job Resources

The JD-R model has emphasised the motivational potential of job resources, resulting in work engagement. The following section includes the job resources used in the present study as part of the JD-R model of work engagement. Previous studies have consistently shown the following resources to be positively associated with work engagement. Resources include:

### Autonomy

Job autonomy refers to the degree to which the job provides substantial freedom, independence, and discretion to the employee in scheduling their work and in determining the procedure to be used in carrying it out (Hackman & Oldham, 1975). Several studies have confirmed the importance of autonomy in developing positive outcomes. For example, Cagne et al (2003) found that autonomy support led to greater engagement in an initially uninteresting activity revealing increased positive feelings toward the activity. The most important role autonomy plays in the context of the JD-R model of work engagement is its motivational impact on work engagement in the sense that it encourages the employee to take ownership of the task they are performing and they become accountable for the results and outcomes of the tasks they perform.

### Development Opportunities

Employee development refers to the long-term personal and professional growth of individuals and can play an important role in helping to maintain employee effectiveness in an organisation (Tansky & Cohen, 2001). Roberts and Davenport (2002) argue that even modest interventions can improve employees' views not only about development and career growth but also about their identification with their work environment and organisation as a whole. Seijts and Crim (2006) argue that not providing people with the "knowledge and tools to be successful is unethical and de-motivating; it is also likely to lead to stress, frustration, and, ultimately, lack of engagement (p. 3).

### Skill Variety

Skill variety has been defined as "the degree to which a job requires a variety of different activities in carrying out the work, which involve the use of a number of different skills and talents of the person" (Hackman, 1975, p. 161). According to Hackman and Oldham's (1975) Job Characteristics theory, the presence of skill variety, along with other key job

characteristics (task identity, task significance, autonomy and feedback) creates a positive work environment leading to better psychological and performance outcomes (Rosenblatt, 2001). Researchers using this theory to investigate work restructuring efforts among a sample of teachers found that these resources improved teacher motivation, satisfaction and participation. Further, a meta-analysis conducted by Fried and Ferris (1987) found that out of all the five job characteristics, skill variety had the strongest positive relationship with work motivation and had a strong negative relationship with absenteeism in three studies (Rosenblatt, 2001).

### **Supervisor Support**

Supervisor and colleague support promote work engagement both extrinsically and intrinsically (Halbesleben, 2010; Schaufeli & Bakker, 2004). This type of support may lead employees to feel satisfied and devoted to their work, resulting in the willingness to dedicate their efforts to perform their work tasks to a high standard. For example, Bakker et al (2008) concluded that supportive supervisors and regular feedback from their supervisor increased the likelihood of employees successfully achieving their work goals. Additionally, first line supervisors are believed to be particularly influential in increasing engagement levels and they are believed to be the root of disengagement (Saks, 2006). Barnabe and Burns (1994) found that a supportive and trusting interpersonal relationship encouraged psychological safety. In other words, employees felt safe in work environments that were characterised by openness and supportiveness.

### **Performance Feedback**

Performance feedback has been defined a number of ways. Some definitions include information that is given to employees regarding the quantity or quality of their past performance, information provided back to the employee following a particular performance, information that tells employees what and how well they are doing and information about performance that allows an individual to adjust his or her performance (Alvero et al, 2001). Kim (1984) argues that performance feedback can act as a motivational tool for employees as it allows them to understand exactly what is expected of them, in turn, reducing role ambiguity. This gives employees the opportunity to create their own goals, increasing their motivation to perform well.

The JD-R model of work engagement assumes that access to a set of job resources will start a motivational process, leading to increased work engagement. This gives rise to the first hypothesis.

## **Hypothesis 1**

**Job resources are positively related to work engagement.**

Another assumption of the JD-R model is that access to these job resources will particularly influence work engagement when employees are faced with high levels of job demands. Hypothesis 2 is postulated accordingly.

## **Hypothesis 2**

**High levels of resources are positively related to work engagement levels, particularly when job demands are high.**

## **Organisational Outcomes**

The importance of increasing work engagement levels has recently become an important concept in organisational psychology due to the positive organisational outcomes associated with it. The following section includes the common organisational outcomes identified in the literature as positively correlating with work engagement. They were included in the present study as part of the JD-R model.

### **Intent to Leave**

It is likely that people who feel immersed and dedicated in their role will have a positive view of the organisation and want to stay. Halbesleben & Wheeler (2008) argue that the link between engagement and turnover is based on high levels of investment in one's work and strong dedication and determination to succeed. That is, an employee who is highly engaged is likely to find it quite hard to detach themselves from their job partly due to the energy they have invested in the role and partly due to the strong identification they have with their work.

### **Job Satisfaction**

Employees job satisfaction levels are based on their personal assessment regarding whether or not their needs are being met to a satisfactory level (Hellman, 1997) The positive feelings associated with high job satisfaction make people more willing to carry out tasks in a manner that is beneficial to the organisation (Judge, Bono, Thoresen & Patton, 2001).

Essentially, employees who feel successful in relation to work goals at work and who are rewarded appropriately by the organisation for their performance will generally feel satisfied with their job (Locke & Latham, 1990). In relation to organisational outcomes, theoretical and empirical research has revealed that employees who are satisfied are more likely to stay on the job and to engage in extra-role activities, while those that are dissatisfied are more likely to quit the job, be absent and put less effort into their work tasks (Locke & Latham, 1990). In relation to the correctional environment, Lambert et al (1999) report that navy correctional staff who reported higher levels of job satisfaction also had a positive view of incarcerated individuals and had a stronger attitude towards rehabilitation.

### **Organisational Commitment**

Steers (1977) defined organisational commitment as the acceptance of the goals and values of the organisation, willingness to exert effort on behalf of the organisation and a desire to stay with the organisation. Results of several recent studies suggest that overall employees with strong affective commitment to the organisation work harder and perform to a higher standard than those with weak commitment and are more likely to stay with the organisation (Meyer & Allen, 1997). Further, individuals come into an organisation with expectations regarding their needs, desires and skills and they expect a work environment where they can utilise their skills and satisfy their basic needs, resulting in increased commitment.

Lambert et al (1999) discuss the finding that organisational commitment among correctional officers at a Kentucky prison was related to all aspects of job performance they examined. As a result, the positive work outcomes can even benefit offenders through better staff-inmate interactions, better prison standards and conditions and a safer environment.

Not only is work engagement important in enhancing employee well-being, it is important for the success of the organisation and previous research has identified a positive relationship between work engagement and specific organisational outcomes. This gives rise to hypothesis three.

### **Hypothesis 3**

**Work engagement is positively related to job satisfaction, organisational commitment and negatively related to intent to quit.**

The JD-R model of work engagement also assumes that job resources positively relate to work engagement, in turn, positively relating to organisational outcomes. Therefore, job resources have a positive impact on organisational outcomes when mediated by work engagement. The last three hypotheses are derived from this.

#### **Hypothesis 4**

**The positive relationship between job resources and job satisfaction will be mediated by work engagement.**

#### **Hypothesis 5**

**The positive relationship between job resources and organisational commitment will be mediated by work engagement.**

#### **Hypothesis 6**

**The negative relationship between job resources and turnover intent will be mediated by work engagement.**

## Method

### Procedure

Permission was sought and granted by the Massey University Human Ethics Committee: Northern (approval number MUHECN 10/050). Following this, permission was also sought and granted from the Department of Corrections to use a sample of their Corrections Officers working within the Central Region of New Zealand.

A brief email was sent to approximately 1500 Corrections Officers working within the Central Region. This region includes Waikeria Prison, New Plymouth Prison, Tongariro/Rangipo Prison, Hawke's Bay Prison, Wanganui Prison and Manawatu Prison. The initial email briefly outlined the objectives of the study, introduced myself and briefly outlined the aims of the research and invited the officers to participate. If the officers chose to participate in the research they were asked to follow a link that was provided in the email that led them to the survey (see Appendix B) hosted at [www.surveymonkey.com](http://www.surveymonkey.com), a secure hosting site.

The survey opened with an information sheet (see Appendix A) further outlining the objectives of the research and explaining the participants' right to confidentiality and anonymity. The participants email addresses were not recorded in order to preserve anonymity. The information sheet outlined that if participants wanted to receive a copy of the results on completion of data analysis they could email me. After seven days a reminder was sent out.

After a further five days an email was sent out to thank participants and to remind them that the survey would be closing at the end of the working day. All data was downloaded directly from Survey Monkey into SPSS 18.

### Participants

One thousand five hundred surveys were sent out. Of those, 236 surveys had been started with 216 completed, giving an overall response rate of 14.4%. Of the 216 who completed the questionnaire, 157 completed it with less than the required 15% of items being missed. This gave a final useable sample of 157, which was 10.5% of the originally targeted sample.

The majority of participants were male (76.7%). Twenty-eight (13%) participants were 'Below 35', 146 (67.9%) were between '35-55' and 42 (19.5%) were 'above 55'.

In terms of the participants' tenure in their current role, seven (3.2%) had been in their role for less than 12 months, 56 (25.9%) had been in their role for 1-5 years and 63 (29.2%) had been in the role for 5-10 years while 92 (42.6%) had been in their current role for more than 10 years. One hundred and eleven (55.2%) of the participants in the current study were Corrections Officers, 24 (11.9%) were Principal Corrections Officers and 51 (25.4%) of the participants were Senior Corrections Officers with 16 (8%) being Tier 5 Managers.

## **Measures**

### *Work Engagement*

Work engagement was measured with the nine-item Utrecht Work Engagement Scale. The instrument includes three subscales: Vigour, Dedication and Absorption. Vigour was assessed with three items, eg "At my work, I feel bursting with energy". Dedication was measured with three items, eg, "I am enthusiastic about my job", and Absorption was measured with three items, eg "I am immersed in my work". Several previous studies have demonstrated the validity, reliability and stability of the Utrecht Work Engagement Scale (eg, Schaufeli & Bakker, 2004; Schaufeli, Martinez, Marques-Pinto, Salanova & Bakker, 2002; Schaufeli, et al, 2002; Storm & Rothmann, 2003).

All items include a response scale ranging from 1 = strongly disagree to 5 = strongly agree. The Cronbach's alpha for the present study for all items was .876. Schaufeli and Bakker (2003) argued that it might be more useful to look at the total score for work engagement due to the moderate to high correlations between the dimensions.

### *Job Resources*

Autonomy was measured with three items based on Karasek's (1998) Job Content Scale, "I can decide myself how I execute my work" with a response scale ranging from 1 = strongly disagree to 5 = strongly agree. The Cronbach's alpha for the present study for the three items combined was .792.

Supervisor Support was measured with three items based on the Survey of Perceived Organisational Support (SPOS; Eisenberger et al, 1986, 1990). Items include "My supervisor really cares about my well-being", "My supervisor strongly considers my goals and values" and "My supervisor has very little concern for me" (Reversed-coded), The Cronbach's alpha for the present study for the three items combined was .849.



Performance feedback was measured with three items partly based on Karasek's (1985) Job Content Instrument, "I receive sufficient information about my work objectives". The Cronbach's alpha for the present study for the three items combined was .797.

Opportunities for professional development were measured with three items from the scale constructed by Bakker, Demerouti, Taris, Schaufeli and Schreurs (2003), "My work offers me the opportunity to learn new things". The Cronbach's alpha for the present study for the three items combined was .769.

Skill variety was measured using two items based on Hackman and Oldham's Job Diagnostic Survey (1975), "I am given the opportunity to use variety of skills". The Cronbach's alpha for the present study for the two items combined was .817.

All job resource items were scored on a five-point scale ranging from 1 = strongly disagree to 5 = strongly agree.

### *Job Demands*

The four-item job demands scale was developed for the present study. Four job demands identified in the literature regarding Corrections Officers stressors revealed personal safety concerns, lack of resources/equipment, lack of managerial support and lack of career development opportunities as common sources of stress for Corrections Officers, therefore these job demands were adapted into a scale to fit with the JD-R model. A sample item includes "Are personal safety concerns currently a source of stress for you?" with a response scale ranging from 1= Not a source of stress at all to 5 = A significant source of stress for each item. The Cronbach's alpha for the present study for the two items combined was .768.

### *Organisational Outcomes*

Job satisfaction was measured by two items developed by Cammann et al (1983): "All in all, I am satisfied with my job" and "I feel challenged by my work". The Cronbach's alpha for the present study for the two items combined was .679.

Organisational commitment was measured with two items used by Rhoades et al (2001): "I feel personally attached to my work organisation" and "I believe people should be loyal to the organisation". The Cronbach's alpha for the present study for the two items combined was .690.

Intention to leave the organisation was measured by two items used by Begley and Czajka (1993) "As soon as I can find a better job, I will quit" and "I often think about quitting my job". The Cronbach's alpha for the present study for the two items combined was .900.

All items within organisational outcomes were scored on a five-point scale ranging from 1 = strongly disagree to 5 = strongly agree.

Two questions were included at the end of the survey in order to gain some qualitative data to clarify the findings from the quantitative analysis. The questions included "What aspects of your job are the most stressful for you?" and "What aspects of your job are the most satisfying for you?"

### **Data Analysis**

Structural Equation Modelling (SEM) can be used to test the fit of the model to the data, however, a minimum sample size of 200 has been proposed as a 'critical sample size' (Hoe, 2008) to provide sufficient statistical power for data analysis, therefore, the sample size in the present study did not meet this criteria. Further, SEM is a valuable tool when comparing competing models, whereas the aim of the present study is to investigate the validity of a single model.

All resources were combined into a global 'job resources' score, as were demands. A two way ANOVA was chosen and job demands and resources were dichotomised by median split to create four groups representing high and low demands and resources. This method was chosen as the appropriate data analysis method because the magnitude of any interaction can be easily quantified by looking at group differences.

#### *ANOVA Assumptions*

All ANOVA variables were on an interval scale. The work engagement variable had six (2.5%) missing values. The job resources variable had seven (3%) missing cases and the job demands variables had six (2.5%) missing cases. Casewise deletion was used which did not result in more than 5% of missing cases in any given ANOVA. According to Tabachnik & Fidell (2007), 5% or less of missing cases for any variable with a reasonably large sample group does not pose a significant problem. As a result, it was decided that the missing data would be omitted from any further analysis.

There were no substantive departures from normality on any variables. Further, with a relatively large sample any slight deviations from normality tend to have less of an effect on the accuracy of the analysis (Tabanick & Fidell, 2007). In addition, there were no

outliers and there were no substantive departures from the equality of variance assumption.

### *Regression Assumptions*

Regression analyses were chosen to assess the effect of job resources on organisational outcomes through work engagement (hypotheses 4-6) as Baron and Kenny (1986) argue an ANOVA provides a limited test of a mediational hypothesis. Instead, a series of regression models is recommended. All data was measured at the interval level and the assumptions for normality and linearity were met.

An assessment of the correlation matrix in table 1 shows that no predictors correlate very highly (above .80 or .90) suggesting multicollinearity may not be an issue. However, this method can miss more subtle forms of multicollinearity, therefore, collinearity diagnostics were assessed. The tolerance criteria of below .2 were never exceeded, further confirming that that multicollinearity is not an issue.

The mediational hypotheses (4-6) were conducted following four steps indicated by the mediation model of Baron and Kenny (1986). The first criterion of Baron and Kenny's process is that the initial variable must be correlated with the outcome variable, in order to establish an effect that may be mediated. Step two requires evidence that the initial variable is correlated with the mediator; therefore, the mediator is treated as the outcome variable.

Step three requires evidence of a correlation between the mediator and the outcome variable, so the initial variable must be controlled while establishing the correlation between the mediator and the outcome. The last step requires that there is no association between the initial variable and the outcome variable after controlling for the mediator variable (full mediation) or that the association between the initial variable and the outcome variable is substantially reduced (partial mediation).

### *Inductive Content Analysis*

To analyse the qualitative data from the two questions asked at the end of the survey an inductive content analysis was used. The first step entailed open coding where notes and headings were written while reading through the text. Once this was complete, the next step was to create the categories, where material was read over again and as many headings as necessary were written down in order to describe all aspects of the content. Headings were then collected and the categories were freely generated at this stage (Elo & Kyngas, 2008).

The next step in the process was to group the categories into higher order headings in order to reduce the number of categories by combining those that were similar or dissimilar into more broad higher order categories (Elo & Kyngs, 2008).

Elo and Kyngs (2008) state that creating categories provides us with a means of describing the phenomenon as we can classify data as 'belonging' to a particular group where it can be compared against observations that do not belong to the same category. Formulating the categories enables the researcher to decide which information goes into the same category. Finally, abstraction refers to the final stage of the process where categories were named using content-characteristic words where subcategories of events or descriptions were grouped together and categories were grouped as main themes and labelled accordingly (Dey 1993, Robson, 1993, Kyngas & Vanhanen, 1999).

## Results

**Hypothesis 1** that job resources would be positively related to work engagement was supported. Table 1 indicated that all correlations between job resources and work engagement are positively correlated and all job resources are positively correlated with each other.

All resources had a significant positive impact on work engagement, as indicated by the regression weights in Table 1. For example, for each unit increase in autonomy there was a .202 unit increase in work engagement, on average.

Table 1.

*Correlations Between Job Resources and Work Engagement and regression weights for Work Engagement regressed on Resources*

<i>Resources</i>	<i>Autonomy</i>	<i>Supervisor support</i>	<i>Performance feedback</i>	<i>Development opp</i>	<i>Skill variety</i>	<i>Work engagement</i>	$\beta$	<i>Beta</i>
Autonomy	1						.202	.259
Supervisor support	.298**	1					.307	.232
Performance feedback	.347**	.334**	1				.177	.051
Development opp	.353**	.424**	.463**	1			.276	.400
Skill variety	.367**	.350**	.393**	.688**	1		.267	.356
Work engagement	.259**	.232**	.224**	.400**	.356**	1		
Mean (SD)	3.289 (.850)	2.940 (.503)	3.201 (.838)	3.333 (.966)	3.504 (.886)	3.292 (.665)		

All table values significant at  $p < .001$

**Hypothesis 2**, that high levels of job resources would be positively associated with high levels of work engagement, particularly when job demands are high was not supported by the data. A two-way (job demands x job resources) ANOVA determined whether the association between resources and work engagement was dependant on the level of job demands. Table 2 and Figure 3 show there was no statistically significant interaction.

When assessing the main effects of job resources and demands, results revealed that there was a significant increase in work engagement from low to high resources [ $F(1,158) = 15.832, p < .000$ ]. However, when looking at the main effect of job demands, results revealed no statistically significant main effect [ $F(1, 158) = 2.414, p < .000$ ]. Therefore, there is no increase in work engagement when we go from low to high job demands.

Table 2.

*Assessing the moderating effect of job resources on the relationship between job demands and work engagement.*

<i>Sources of Variance</i>	<i>F</i>	<i>Sig.</i>
Job demands	2.414	.122
Job resources	15.832	.000
JD x JR	.080	.778

R Squared = .176 (Adjusted R Squared = .161)

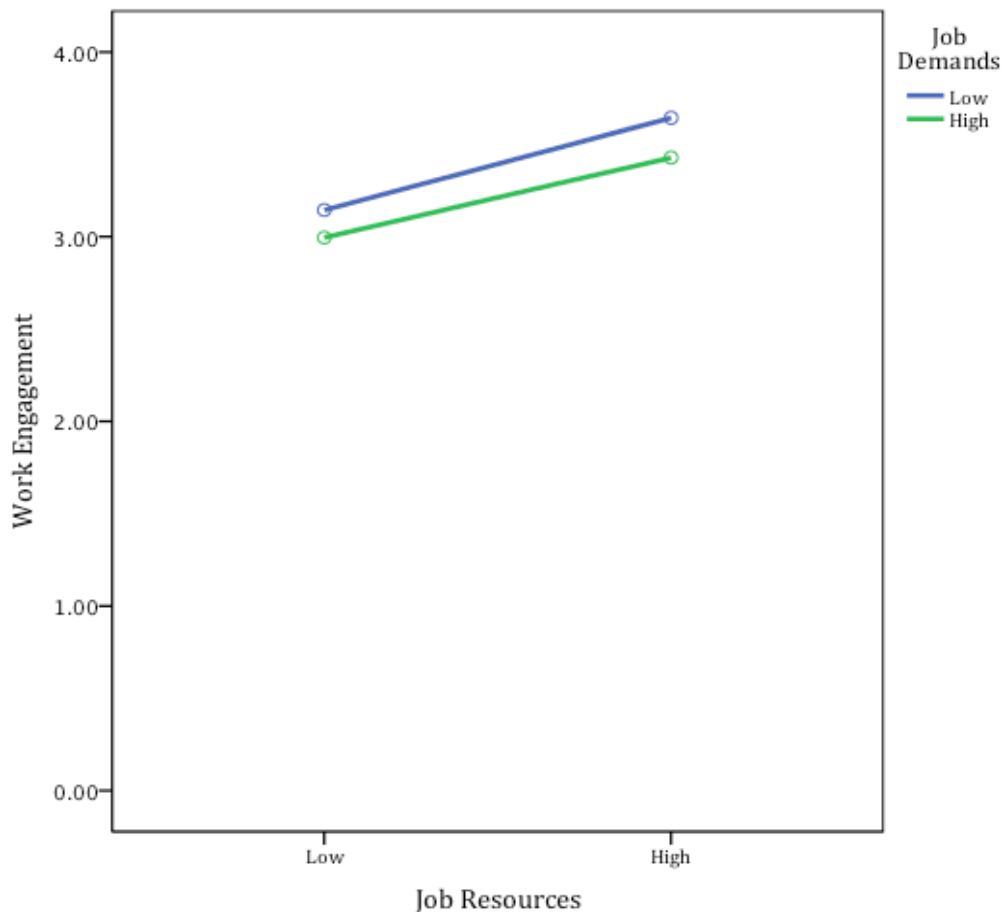


Figure 3. The influence job demands have on the relationship between job resources and work engagement.

The problem with this ANOVA analysis is that dichotomising the variables (can) leads to the loss of information, potentially resulting in an underpowered analysis. As a result, a multiple regression was conducted, variables were centred as recommended by Aiken, West and Reno (1991) and all other regression assumptions were met. This statistically more powerful analysis confirmed the significant main effect of resources ( $t = 6.744$ ,  $p < .001$ ) and the non significant main effect of demands ( $t = -4.091$ ,  $p < .001$ ). Additionally, the interaction effect was not significant ( $t = -1.656$ ,  $R^2$  change = .010,  $p = .099$ ). These results are consistent with the results from the ANOVA .

**Hypothesis 3**, that work engagement would be positively related to job satisfaction and organisational commitment and negatively related to intent to quit was supported by the data (See Table 3).

All organisational outcomes had a significant positive impact on work engagement, as indicated by the regression weights in Table 3. For example, for each unit increase in job satisfaction there was a .187 unit increase in work engagement, on average.

Table 3.

*Correlations Between Organisational Outcomes and Work Engagement*

<i>Organisational outcomes</i>	<i>Work engagement</i>	<i>Job satisfaction</i>	<i>Organisational commitment</i>	<i>Turnover intent</i>	$\beta$	<i>Beta</i>
Work engagement	1					
Job satisfaction	.689**	1			.187	.367
Organisational commitment	.540**	.446**	1		.309	.024
Turnover intent	-.593**	-.619**	-.357**	1	.111	.309
Mean (SD)	3.292 (.665)	3.378(.850)	3.077(.935)	2.863(1.237)		

\*\*p<0.01 (2-tailed)

Mediated regressions were used to test **hypothesis 4** that job resources would be positively related to job satisfaction when mediated by work engagement. The four requirements are outlined with three steps in Table 4.

The first requirement in Baron and Kenny's four-step model was met. There was a significant correlation between job resources and job satisfaction ( $r = .544, p = .05$ ), with job resources accounting for 29.6% of the variance in job satisfaction. For every unit increase in job resources there was a .778 unit increase in job satisfaction.

Conditions were also met for the second requirement. There was a significant correlation (.410), therefore, job resources can account for 16.8% of the variance in work engagement. For every unit increase in job resources there is a .460 unit increase in work engagement.



Results revealed that work engagement had a significant impact (.892) on job satisfaction. The two variables are significantly correlated (.689) so there is evidence for a mediated pathway.

The fourth condition requires evidence that work engagement mediates the relationship between job resources and job satisfaction. A stepwise multiple regression analysis shows that resources explain 8.5% of variance in job satisfaction after controlling for work engagement.

The drop from 29.6% shared variance down to only 8.5% shared variance in the last step indicates that the mediating pathway does account for most of the observed association between job resources and job satisfaction but it does not account for all of it, therefore, we can conclude partial mediation exists as opposed to complete mediation.

The impact of job resources on job satisfaction has reduced from .778 down to .456 in step four, which is the unique impact of job resources after controlling for work engagement.

A criticism of the Baron and Kenny approach is that it never directly tests the significance of the full mediated pathway. Therefore, the analysis was followed up with the Sobel test with bootstrapping. This test was conducted using Preacher and Hayes (2004) SPSS Script for Simple Mediation. Results revealed that for every one unit increase in job satisfaction, there was a .323 increase in job resources (when) that is mediated by work engagement ( $z = 5.705, p < .001$ ). These results confirm the partial mediation found in the regression analysis.

Table 4

*Work Engagement as a mediator of the relationship between job resources and job satisfaction*

	<i>IV</i>	<i>DV</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>Adj. R<sup>2</sup></i>
Step 1	Job Resources	Job Satisfaction	.778	.080	.544	.293
Step 2	Job Resources	Work Engagement	.460	.068	.410	.164
Step 3		Work Engagement	.721	.063	.560	
	Job Resources	Job Satisfaction	.456	.069	.319	.555

All regression weights significant at  $p < .001$

Mediated regressions were used to test **hypothesis 5** that job resources would be positively related to organisational commitment when mediated by work engagement. Steps are outlined in Table 5. The first requirement in Baron and Kenny's four-step model was met. There was a significant correlation between job resources and organisational commitment ( $r = .357$ ,  $p = .05$ ), with job resources accounting for 12.7% of the variance of organisational commitment. For every unit increase in job resources there was a .557 unit increase in organisational commitment.

The second requirement was met and results revealed that work engagement has a significant impact (.765) on organisational commitment. The two variables are significantly correlated (.410) so there is evidence for a mediated pathway.

The fourth condition requires evidence that work engagement mediates the relationship between job resources and organisational commitment. A stepwise multiple regression analysis shows that resources explain only an additional 2.3% of variance in organisational commitment after controlling for work engagement.

The drop from 12.7% shared variance down to only 2.3% shared variance in step four indicates that the mediating pathway does account for most of the observed association between job resources and organisational commitment but it does not account for all of it, so we can conclude that partial mediation (not complete mediation) exists.

The impact of job resources on organisational commitment has reduced from .763 down to .669 in step four, which is the unique impact of job resources after controlling for work engagement.

Results from the Sobel test with bootstrapping revealed that for every one unit increase in job satisfaction, there was a .301 increase in job resources when mediated by work engagement ( $z = 5.003$ ,  $p < .001$ ). Results confirm the partial mediation found in the results from the regression analysis.

Table 5.

*Work Engagement as a mediator of the relationship between job resources and organisational commitment.*

	<i>IV</i>	<i>DV</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>Adj. R<sup>2</sup></i>
Step 1	Job Resources	Organisational Commitment	.557	.098	.357	.123
Step 2	Job Resources	Work Engagement	.460	.068	.410	.164
Step 3	Work Engagement		.669	.086	.477	
	Job Resources	Organisational Commitment	.257	.095	.164	.311

All regression weights significant at  $p < .001$

Mediated regressions were used to test **hypothesis 6** that job resources would be negatively related to turnover intent when mediated by work engagement (See Table 6).

The first requirement in Baron and Kenny's four-step model was met. There was a significant correlation between job resources and turnover intent ( $r = .477, p = .05$ ), with job resources accounting for 22.7% of the variance in turnover intent. For every unit increase in job resources there is a -1.000 unit decrease in turnover intent.

The second requirement has been met as there is a significant correlation (.410) between job resources and work engagement, and job resources can account for 16.8% of the variance in work engagement. Results revealed that work engagement has a significant impact (-1.118) on turnover intent. The two variables are significantly correlated (.410) so we have evidence for a mediated pathway.

The last step requires evidence that work engagement mediates the relationship between job resources and turnover intent. A stepwise multiple regression analysis shows that resources explain only an additional 6.7% of variance in turnover intent after controlling for work engagement.

The drop from 22.7% shared variance down to only 6.7% shared variance in step four indicates that the mediating pathway does account for most of the observed association between job resources and turnover intent but it does not account for all of it, so we can conclude that partial mediation (not complete mediation) exists.

The impact of job resources on turnover intent has reduced from -1.123 down to -.907 in step four, which is the unique impact of job resources after controlling for work engagement.

Results from Sobel test with bootstrapping revealed that for every one unit increase in turnover intent, there was a -.406 decrease in job resources when mediated by work engagement ( $z = -211$ ,  $p < .001$ ). Results confirm the partial mediation found in the regression analysis.

Table 6.

*Work Engagement as a mediator of the relationship between job resources and turnover intent.*

	<i>IV</i>	<i>DV</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>Adj. R<sup>2</sup></i>
Step 1	Job Resources	Turnover Intent	-1.000	.123	-.477	.224
Step 2	Job Resources	Work Engagement	.460	.068	.410	.164
Step 3	Work Engagement		-.907	.105	-.480	
	Job Resources	Turnover Intent	-.594	.117	-.283	.415

All regression weights significant at  $p < .001$

## **Themes Generated from the Inductive Content Analysis**

Responses were studied repeatedly to develop the emerging themes (or categories) regarding the perceived demands that exist in the work environment for the sample group. Initially eleven themes emerged from the responses. These were later reduced to six after some of the smaller categories were combined with the key themes.

The main categories relevant to the most stressful aspects of the role include:

### *Safety Concerns*

The key concerns that emerged relating to personal safety were the antisocial nature of shift work and understaffing, which led to heightened levels of concern for personal safety. These were combined into underlying theme: safety concerns. One example relating to understaffing includes:

*“The areas of most concern is safety issues, with management not covering shifts, and putting more stress on the officers that have to cover them without the normal amount of staff rostered on.”*

Another example relating to shift work includes:

*“Shift work is very stressful. When you are rostered in units that work 24/7 I am an absolute mess. Hearts racing, body's trembling, you have the shakes, can't sleep, and can't eat, constantly grumpy. It puts a lot of stress on your family as well.”*

### *Relationship with Management*

The key concerns relating to the officers' relationship with Management referred to the perceived lack of support and their lack of input in the decision-making process. These two categories were combined into one overall theme labelled 'Relationship with Management'. One example relating to the lack of support states:

*“Support from the Management and the Department. We only ever appear to be a number to them and if we didn't look after each other the way we do then this place would fall apart.”*

Another example regarding the lack of input into the decision-making process includes:

*“Management & Head Office not listening to the concerns and recommendations from those working on the coal face. People with no on the job experience making decisions based on theory.”*

### *Lack of Resources*

The key concerns relating to lack of resources included the perceived view of a lack of equipment and training. These categories were combined into a general theme labelled 'Lack of resources'. One example relating to equipment includes:

*"A lack of resources is a continual source of frustration i.e.; no decent computer work stations, inadequate staff facilities, not enough staff on the floor, not covering designated shifts. No placement areas for prisoners, the removal of job training opportunities for prisoners."*

Another example regarding training includes:

*"Lack of training one on one with staff, such as a buddy system or the like. PMS (Performance Management System) is not really pushed or even followed. Goals need to be set and helped achieved."*

### *Role Conflict*

The concerns relevant to role conflict include the lack of clarity surrounding custodial duties and offender management duties. One example includes:

*"The role conflict of the job can be stressful. Enforcing the security and discipline side of the job against the casework of the reintegrative needs. Sentence planning/management has you supporting the prisoners versus compliance of prison rules and environment, enforcement."*

### *Lack of Development Opportunities*

The concerns relevant to the lack of career opportunities relate to the perception regarding the lack of opportunity to move forwards. One example includes:

*"I joined this job for a career but to date I still feel I am simply filling the gaps that need filling when staff need to be moved around to suit management. PMS and career paths do not seem to mean much and management do not have to explain why they do what they do, even when it effects the direction of someone's career."*

### *The Focus on Compliance Over and Above Offender Rehabilitation*

The concerns regarding the perception of too much emphasis on compliance and administrative processes relate to the time consuming process of completing paperwork that reduces the interaction with offenders. One example includes:

*“Most stressful is the constant specter of the 'compliance' issue. I fully agree that security is paramount however there exists an atmosphere of near paranoia surrounding the need to 'comply' with administrative matters which at times seem to overshadow our primary concern which is to ensure the safe, secure, and humane containment of the criminal.”*

The most common categories recurring from the most satisfying aspects of the role were combined to create four key themes, including:

#### *Team work/Camaraderie*

The support the officers receive from their team members and colleagues seems to be the most satisfying aspect of the role as they describe a feeling of being in it together and achieving goals as a unified team. One example includes:

*“Working along side Staff who you know have your back. At the end of the day we all want to go home and knowing your co-workers are there for you and you for them is satisfying.”*

#### *Successful Rehabilitation of Offenders*

Another common theme relates to the satisfaction and achievement they felt when they successfully rehabilitated an offender. One example includes:

*“Seeing a prisoner’s attitude to his offending change. Knowing I have had some input into changing a person’s life for the better and the ripple effect it will have on the family and community as a whole.”*

#### *Opportunity to do Meaningful Work*

The opportunity to do meaningful work was acknowledged as a satisfying aspect of the role. One Officer described this as:

*“Making a difference for my staff and prisoners. Seeing people grow and change. This job does not measure success because our success stories don't come back. I still get satisfaction from good outcomes and new learning's though.”*

#### *Skill Variety*

The opportunity to utilise their skills in a variety of different roles was also acknowledged as a satisfying aspect of the role. One Officer states:

*“I enjoy the variety of tasks and having the opportunity to operate in different roles.”*

The key themes generated from the qualitative data relating to the most stressful aspects of the role confirm several of the overall demands used in the JD-R model for this study, however, they were often related to a more specific stressor within the overall theme. As a result, in order to capture the impact of the demand on officers' stress levels, it would be beneficial to measure a more specific set of demands. With respect to the most satisfying aspects of the role, it was clear that the camaraderie between officers and the successful relationships with offenders were crucial to officers' satisfaction. This emphasises the need for the Department to foster these relationships, and provide the necessary resources to support them in their role.



## Discussion

### **The Major Findings of the Study and their Importance**

The present study explored the motivational process of the JD-R model of work engagement using a sample of Corrections Officers working within New Zealand. The first proposition of the model refers to the relationship between job resources and work engagement, particularly when job demands are high. The second proposition refers to the relationship between job resources and organisational outcomes, when mediated by work engagement.

The first step in exploring these propositions was to investigate the relationship between job resources and work engagement (Hypothesis 1). Results support the positive relationship between job resources and work engagement, further extending the notion of job resources and their important role in the motivational process, resulting in engagement. This finding is in line with previous research on the role of job resources as the main correlates of work engagement (Hakanen et al, 2006; Mauno et al, 2006; Schaufeli & Bakker, 2004). Specifically, that employees who experience autonomy at work, have supportive supervisors, receive high-quality feedback and have opportunities for professional development and skill variety are more likely to possess the instrumental capacity and intrinsic motivation to achieve their work goals. Therefore, when employees perceive they have the necessary resources to perform their job and successfully achieve their work goals, they are likely to be engaged in their work (Schaufeli & Bakker, 2004).

A key premise explored within the motivational process of the JD-R model is that resources particularly gain their salience under high levels of demands (Hypothesis 2). Specifically, resources are particularly important for employees engagement levels when they are confronted with high job demands. Results from the present study did not support this assumption and is not in line with previous research assessing this relationship. The results show that the positive association between resources and work engagement was the same, regardless of the level of job demands.

A previous study conducted by Hakanen et al (2006) focused specifically on the impact of job demands on the relationship between job resources and work engagement with a sample of 805 Finnish teachers. Bakker et al found that job resources are particularly important for teachers work engagement levels under highly stressful conditions, specifically, that resources such as supervisor support and appreciation particularly influenced teachers work engagement when pupil misbehaviour was considered a

significant job demand. This result suggests that job resources provide coping mechanisms for dealing with the stress created by this particular demand.

Findings from this study were not consistent with other studies testing the moderating impact of job demands. As a result, possible explanations for the unexpected findings need to be considered.

When assessing the data it seems that that majority of participants considered the demands to be only occasional sources of stress, therefore, they were either not representative of true demands present in this prison environment or the high levels of perceived resources meant they were able to cope with the demands, changing their perception of how stressful the demands are to them.

The qualitative data obtained from the two questions at the end of the survey regarding the most stressful and satisfying aspects of the role, revealed that several of the major stressors identified from the analysis were used within the demands component of the model, including safety concerns and a lack of career development opportunities. However, the demands included may have been too general in order to get a clear understanding of the impact of officers' stress levels.

Results from the qualitative analysis suggest it would be beneficial to include more specific demands within the correctional work environment located within the major themes to gain a deeper understanding of the relationship between job resources and work engagement when these demands were high. For example, 'personal safety concerns' was included as a general demand in the JD-R model, however, the qualitative analysis revealed that within personal safety concerns, shift work and understaffing were the key stressors leading to these concerns, therefore, it may be more beneficial to assess these specific demands in relation to this particular occupational group as it may capture more relevant demands present in this work environment.

After assessing the data further, it is evident that the dichotomised groups (high and low demands) were not able to be distinguished enough to show significant results. Median splits do not always give good group differentiation and when assessing the means it is clear that the groups do not have the necessary differentiation needed for the analysis and, consequently, lack power. A criticism of the ANOVA analysis approach is that the use of cut off points to create artificial groups results in a loss of information and a reduction in power to detect interaction effects (Frazier, Tix & Barron, 2004).

Due to the lack of power evident in the ANOVA analysis a multiple regression was conducted to assess any interaction effect with a more powerful analysis. Results were consistent with the ANOVA analysis, that resources were a significant predictor of work engagement, however, the main effect of demands was not significant. Further, there was no significant interaction effect, confirming the initial ANOVA results.

Another explanation for the possible unexpected finding may be that while high levels of job demands may be energy depleting, resulting in increased strain, demands perceived as low to moderate sources of stress may actually increase satisfaction levels and be seen as a challenge as opposed to a demand. The role of Corrections Officer is assumed to be a particularly demanding role due to the nature of the environment, however, to be drawn into such a role, it is likely that officers thrive in challenging environments and find stimulation in overcoming difficult situations.

As mentioned previously, Bakker and Demerouti (2006) propose that the high resources/low demands combination resulted in low strain and high motivation, suggesting that the high levels of resources perceived to be available for the sample in the present study may have modified the perception of how stressful these demands are to them. This theory is aligned with research findings from Schaufeli and Bakker (2001) showing that some employees were not experiencing burnout regardless of job demands being present because they seemed to find enjoyment in working hard and managing job demands.

Despite the different ways burnout and engagement influence the motivational process, their antecedents and consequences often overlap. Similar to engagement, burnout is also related to (lack of) resources and to turnover intention. While this is a much weaker relationship, it may be due to the fact that demands and resources are not totally independent from each other, for example lacking resources may also increase demands, while increased resources may decrease demands.

Regardless of the lack of interaction effect evident in the results, the present study can provide support for the foundation of the motivational process of the JD-R model, further emphasising the role of job resources in their positive relationship to work engagement.

The next step of the present study was to investigate the relationship between work engagement and organisational outcomes (Hypothesis 3). Results show support for the positive relationship between work engagement and positive organisational outcomes including job satisfaction and organisational commitment as well as a negative

relationship to turnover intent. These findings are important as they support the notion of work engagement as a valuable concept to measure and use as a basis for developing interventions and strategies in the work environment of Corrections Officers.

These findings are in line with previous research based on the assumption that individuals who are highly engaged in their role will be more satisfied and committed in their work environment and, in turn, less likely to leave. Bakker et al (2003) applied the model to a sample of Dutch call centre employees, investigating its predictive validity for self-reported absenteeism and turnover intentions. Results from the motivation-driven process, revealed that specific job resources were the only predictors of dedication and organisational commitment, and subsequently, related to turnover intentions.

Additionally, the results from the present study partially support the assumption that job resources are positively related to organisational commitment and job satisfaction and negatively related to turnover intent, when mediated by work engagement (Hypotheses 4,5 and 6). The majority of research exploring this relationship found complete mediation, however, while work engagement did account for most of the variance in each organisational outcome, job resources did have some effect; therefore, only partial mediation exists.

These results suggest that when employees could draw upon job resources such as supervisor support, they were more likely to feel dedicated to their role and more committed to the organisation, hence, less likely to leave. Similarly, suggesting that resources enabled employees to be fully engaged in their work, in turn, creating a sense of satisfaction that their expectations and needs have been met.

Xanthopoulou & Demerouti (2008) also assessed the motivational process of the JD-R model, exploring the impact of colleague support on performance using a sample of flight attendants. Results supported this process showing that colleague support enhances flight attendants work engagement levels.

These findings suggest that when employees feel they are able to effectively handle their work requirements, it is more likely that they are willing to put more effort into their tasks. In turn, they show higher levels of engagement, resulting in greater commitment and loyalty to the organisation and higher levels of job satisfaction (Xanthopoulou et al, 2008).

## **Theoretical Relevance /Practical Implications**

The present study has extended the literature by testing the motivational process of the JD-R model using a sample of Corrections Officers working within a New Zealand prison environment. This occupational group is particularly important due to the well-known demands that exist in the prison environment. Results support the general foundation of the motivational process of the JD-R model, emphasising the importance of resources and their impact on work engagement, as well as support for the general notion of work engagement and its relationship with positive organisational outcomes and employee well-being. The findings emphasise the importance of work engagement and its positive influence at the individual and the organisational level.

The cross-sectional nature of the study does not allow the direction of causation to be established. However, the findings have potential benefits for the Department of Corrections because they give an indication of the important resources the Department can provide their officers with in order to allow them the opportunity to fully engage in their role.

The results suggest that regardless of whether job demands are high or low, the job resources used in the present study were positively related to work engagement, therefore, the importance lies in increasing the presence of job resources as opposed to reducing job demands.

From a managerial perspective, this suggests that investing in resources may be a very beneficial intervention. This is in line with a suggestion made by Llorens et al (2006) that human resource management policies aimed at employee growth and development are likely to be more successful in increasing engagement and commitment than policies focused on reducing job demands. This is based on the foundation of positive psychology where the importance lies in facilitating employee strength, development and motivation.

Results revealed that autonomy, supervisor support, performance feedback, development opportunities and skill variety are positively related to organisational outcomes suggesting that organisational strategies should focus on a mixture of organisationally based resources and role based resources in order to allow officers to feel fully engaged in their role. Resources at the organisational level (i.e. development opportunities), interpersonal relationships (i.e. supervisor support), the occupation (i.e. lack of resources) and the task itself (i.e. skill variety) are important for Corrections Officers, because they were positively linked to work engagement and to positive organisational outcomes.

## **Limitations and Suggestions for Future Research**

The most obvious limitation of this study is the cross-sectional nature of the research design, suggesting that the observed relationships must be interpreted with caution and no causal inferences should be made (Llorens et al, 2006). It is impossible to make any causal statements due to temporal ambiguity, as the time-points when engagement occurred and when job demands and resources were more prevalent are unknown (Hakanen et al, 2005). Therefore, to gain an understanding of the predictors of work engagement, it would be beneficial to conduct a longitudinal study.

As with any self-report measure, there may be concerns regarding social desirability bias, particularly due to the fact that the questionnaire was based around levels of work engagement and organisational outcomes. However, both anonymity and confidentiality were assured, limiting the occurrence of such a bias. Further, the JD-R model has been based on subjective evaluations of job demands and resources, increasing the risks of common method variance. Even though employees' perceptions of their work environment are an important source of information, perceptions do not necessarily match objective reality (Bakker et al, 2007). Demerouti et al (2001) successfully used observer ratings as a method to study work conditions and burnout, therefore, it would be interesting if future research could replicate the findings using a combination of self-reports and other ratings of demands and resources, in turn, reducing the threat of construct validity and mono-method bias.

A limited set of resources and demands was used in this study. These were identified from the literature and the demands in particular may not have been specific enough in this study. The ideal research design in testing the JD-R model would be to conduct a thorough qualitative analysis using interview techniques prior to quantitative analysis, in order to reveal a wide range of resources and demands specific to the occupation, which would have a more meaningful impact on the design of workplace interventions.

Results from the ANOVA conducted in the present study revealed a substantial amount of unexplained variance suggesting it is important to take other variables into account when measuring the relationships within the JD-R model. Results from the qualitative data revealed demands present in the prison environment that were not included in the demands component of the JD-R study, therefore, future research would benefit from conducting qualitative research in order to ensure a relevant set of demands and resources are included in the study and to ensure a wide variety are included to establish an accurate and detailed analysis of the relationships within the JD-R model.

Although there are many reasons and motives for entering into Corrections work, the present study does not take into account individual differences such as resilience and self-efficacy. Xanthopoulou et al (2007) expanded the JD-R model by showing that job and personal resources are mutually related and that personal resources are independently related to work engagement. Research conducted by Xanthopoulou et al (2007) found that engaged employees are highly self-efficacious and believe they are able to meet the demands they face in a range of contexts.

Further, Bakker et al (2006) found that among school principals, those with the most personal resources also scored highest on work engagement. As a result, it would be beneficial for future research to investigate the relationship between personal resources and work engagement especially in the prison environment to gain a deeper understanding of the unique personal resources associated with officers and work engagement.

Future research may also benefit from assessing the relationships between job demands, burnout and ill health as well as the motivational process in order to assess the dual pathways within the prison environment. This would give a deeper understanding of work engagement through investigating how the processes interact with each other. Additionally, Schaufeli and Bakker (2003) suggested assessing work engagement as a global measure due to the high correlations between items.

However, it may be beneficial to assess the three different components of engagement (absorption, dedication and vigour) separately because some aspects of the job may increase dedication and absorption while others may be more related to vigour. This would enable a clearer understanding of how different resources influence engagement, gaining insight into the crucial resources necessary in the prison environment.

The most satisfying aspects of the role revealed in the qualitative analysis include the opportunity to do meaningful work and facilitate the successful rehabilitation of offenders. The qualitative information supports the value of skill variety as an important resource for officers while the other aspects were more intrinsic, emphasising the need to provide resources that support and encourage the successful rehabilitation of offenders and support the camaraderie within the frontline. This is beneficial in increasing safety levels as well providing much needed support in an environment that has the potential to be unsafe if the appropriate resources are not made available.

It may also be beneficial to assess the differences between the seniority levels of Corrections Officers as the present study includes Corrections Officers, Principal Corrections Officers, Senior Corrections Officers and Tier 5 Managers. However, because these officers hold different responsibilities, it is likely that the resources considered important to them will vary.

## **Conclusion**

The JD-R model is a promising model for future research as it is able to capture the less researched role of the motivational process leading to work engagement. As a result, it has the potential to be a practical tool for developing strategies to increase the well-being of Corrections Officers. Improving the work environment of Corrections Officers through focusing on providing access to resources and job enrichment strategies can lead to increased levels of work engagement. The initial job resources to focus on could be increased variability in required skills, development opportunities, supervisor support and regular performance feedback. Not only could these practical applications increase job satisfaction levels among officers, they could increase the quality of the relationship between the frontline staff and management, as well as enhancing successful interactions with offenders.

The findings from the present study provide support for the key concept of work engagement and its importance within the occupational environment. Not only is engagement important at the individual level, through increased employee well-being, it is also positively associated with important organisational outcomes. Due to the cross-sectional nature of the present research design, causal statements cannot be made, however, these findings support the basic premise of the JD-R model, suggesting that organisations must ensure their employees have access to the appropriate resources in order to initiate a motivational process, resulting in increased engagement and, in turn, increased performance.



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## Appendix A - Participant Information Sheet

I am currently working as a Human Resources Intern within the Department of Corrections while working towards a Master's degree in Industrial/Organisational Psychology and working on the above-named project. The research aims to look at how the availability of job resources can buffer the impact of high job demands on stress levels. As a Corrections Officer working in New Zealand I would like to invite you to participate in my study. Participation involves answering an online survey that should take approximately fifteen minutes. At the end of the survey you will also have an opportunity to comment on the most satisfying and stressful aspects of your role as a Corrections Officer.

### What the study involves:

In order to explore the relationship between job resources and work engagement, the survey will ask a range of questions relevant to specific job resources and demands. Please note that all participation is voluntary and confidential and your identity will remain anonymous. Completing the survey will imply that you are happy with the conditions of the study and consent to take part in the research. Participation or non-participation will not affect your work with the Department in any way and if you do decide to participate the Department of Corrections will not see any individual results.

My contact details are provided at the end of this sheet so please feel free to contact my supervisor or myself at any stage of the process should you have any queries or concerns.

### If you decide to participate:

- If you do not want to answer a particular question, please leave that question blank.
- You can withdraw from the study at any stage by exiting the online survey
- If you would like more information please contact me on the email below
- All of your answers will be anonymous and confidential
- You are entitled to receive a summary of the key findings of the research.

If you would like a copy please email me at the email address below and I will send you a copy of the major findings once data analysis has been completed.

### Researcher contact details:

Melissa Burney  
School of Psychology  
Massey University  
Ph: 0275456953  
Email: melissa.burney1@gmail.com

### Supervisor contact:

Professor Dianne Gardner  
School of Psychology  
Massey University  
Ph: (09) 414-0800, Ext: 41225  
Email: D.H.Gardner@massey.ac.nz

Thank you in advance for your time.

Regards,

Melissa Burney



## Appendix B - Survey

**1. I can decide myself how I execute my work**

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

**2. I have control over how my work is carried out**

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

**3. In my job, I have freedom to decide how I do my work**

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

**4. My Supervisor really cares about my well-being**

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

**5. My Supervisor strongly considers my goals and values**

Strongly disagree    disagree    Neutral    Agree    Strongly agree

**6. My Supervisor has very little concern for me**

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

**7. I receive sufficient information about my work objectives**

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

**8. I receive sufficient information about the results of my work**

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

**9. I receive sufficient information about the goals of my work**

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

**10. My work offers me the opportunity to learn new things**

Strongly disagree    Disagree    Neutral    Agree    Strongly Agree

**11. I have sufficient possibilities to develop myself at work**

Strongly disagree    Disagree    Neutral    Agree    Strongly Agree

**12. I have the opportunity to participate in a variety of tasks**

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

## Appendix B - Survey

### 13. I am given the opportunity to put a variety of my skills to use

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 1. Are personal safety concerns currently a source of stress for you?

Not a source of stress at all    An occasional source of stress    A moderate source of stress    A frequent source of stress    A significant source of stress

### 2. Is a lack of resources currently a source of stress for you?

Not a source of stress at all    An occasional source of stress    A moderate source of stress    A frequent source of stress    A significant source of stress

### 3. Is a lack of career development opportunities currently a source of stress for you?

Not a source of stress at all    An occasional source of stress    A moderate source of stress    A frequent source of stress    A significant source of stress

### 4. Is a lack of organisational support currently a source of stress for you?

Not a source of stress at all    An occasional source of stress    A moderate source of stress    A frequent source of stress    A significant source of stress

### 5. At my work, I feel that I am bursting with energy

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 6. At my job, I feel strong and vigorous

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 7. I am enthusiastic about my job

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 8. My job inspires me

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 9. When I get up in the morning, I feel like going to work

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 10. I feel happy when I am working intensely

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

## Appendix B - Survey

### 11. I am proud of the work that I do

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 12. I am immersed in my work

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 13. I get carried away when I'm working

Strongly Disagree    Disagree    Neutral    Agree    Strongly agree

### 14. All in all, I am satisfied with my job

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 15. I feel challenged by my work

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 16. I feel emotionally attached to my organisation

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 17. I believe people should be loyal to the organisation

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 18. As soon as I can find a better job, I will quit

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

### 19. I often think about quitting my job

Strongly disagree    Disagree    Neutral    Agree    Strongly agree

To end, we would like to ask you a few basic demographic questions about your background and experience.

### 1. Please select your gender

Male    Female

### 2. Please select the category representing your age group

Below 35    35- 55    Above 55

### 3. How long have you been in this role? (Please select the nearest match to your tenure)

Less than 12 months    1-5 years    5-10 years    More than 10 years

## Appendix B - Survey

### 4. Please select the title of your current role

Corrections Officer

Senior Corrections Officer

Principal Corrections Officer

Tier 5 Manager

### 5. Could you please comment on the areas of your job that create the most stress for you? Why?

### 6. Can you please comment on the areas of your job that are the most satisfying for you? Why?

Thank you very much for taking the time to answer these questions, your participation is much appreciated.

If you would like a summary of the results please email me at [melissa.burney1@gmail.com](mailto:melissa.burney1@gmail.com)

Thank you.