

**EMPLOYEE ATTRIBUTIONS ABOUT  
WELLNESS PROGRAMS: MODERATING  
THE IMPACT OF JOB DEMANDS ON  
EMPLOYEE OUTCOMES**

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# Abstract

Organisations are continuing their focus on the improvement of employee health through the adoption of health and wellness programs (Ott-Holland, Shepherd, & Ryan, 2019; Song & Baicker, 2019). From an academic perspective, health and wellness programs have been viewed as a way to boost employees' job and personal resources, which consequently affects the extent to which job demands lead to strain outcomes as proposed in the job demands-resources model (Bakker, Demerouti, & Euwema, 2005). While many previous studies have focused on the benefits of participating in wellness programs, Safeer and Allen (2019) stated that organisations could reap the benefits, regardless of whether employees actually attend these programs. However, what has thus far been largely neglected is the role played by employee perceptions concerning why such programs are offered in the first place (Groen, Wilderom, & Wouters, 2017; Hewett, Shantz, & Mundy, 2019).

To investigate such perceptions, this thesis drew on HR attributions as defined by Nishii, Lepak, and Schneider (2008), and proposed that attributions about the organisation's motivation for offering a wellness program would interact with job demands, such that negative effects on employee outcomes would be less marked when positive attributions were high, and more marked when negative attributions were high. A cross-sectional research design was used and data were collected from 524 Australian employees with access to an organisational wellness program.

The observed interaction effects varied depending on the employee outcome in question. Results showed that, in the context of job demands, the commitment attribution had a stress-buffering effect on job dissatisfaction, but, contrary to expectations, a stress-exacerbating effect on days impaired by poor health. As predicted, the control attribution had a stress-exacerbating effect in regard to role stressors on days impaired. However, role conflict had a more marked exacerbating effect on job dissatisfaction when control attribution was low compared to high. For the subset of employees who had attended their organisation's wellness program, it was found that high commitment attribution was associated with more favourable wellness program evaluations.

Limitations of the thesis include various sampling and methodological issues, such as the use of non-representative panel data and the potential for self-selection bias. It also is acknowledged that the use of single items to capture commitment attribution and control attribution was a measurement limitation. Overall, it is noted that the cross-sectional research design created the potential for common method bias.

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# List of Abbreviations

COR	Conservation of resources
EAP	Employee assistance program
EHMP	Employee health management program
GHQ	General health questionnaire
HiPo	High potential program
HPWS	High performance work system
HR	Human resources
HRM	Human resource management
JD-R	Job demands-resources
MBI	Maslach burnout inventory
MRA	Multiple regression analysis
NIOSH	National institute for occupational safety and health
OCB	Organisational citizenship behaviour
POS	Perceived organisational support
SET	Social exchange theory
TWH	Total worker health
WHP	Workplace health promotion
WWP	Workplace wellness program

# Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature: [QUT Verified Signature](#)

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# Chapter 1: Introduction

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This chapter outlines the background, research question and describes the significance and contribution of this research (section 1.1). Section 1.2 outlines the aims of the thesis, section 1.3 provides an overview of the methodology, and section 1.4 includes an outline of the remaining chapters of the thesis.

## 1.1 BACKGROUND AND JUSTIFICATION

The improvement of employee health and well-being is of continued interest to organisations in the face of rising stress levels and poorer health (Ott-Holland et al., 2019; Richardson, 2017). In fact, some countries such as New Zealand have placed citizen well-being above productivity priorities (The Sydney Morning Herald, 2019). For organisations, the initial motivation for investing in the health and well-being of its workers has been the increase in costs generated from the worsening state of the health of the workforce. In the US context, these costs have specifically been related to medical and health care spending (Song & Baicker, 2019).

More generally, organisations have taken an interest in the improvement of employee health and well-being due to the potential advantageous outcomes of such investment in the form of reduced turnover, higher productivity and commitment, and improved employee health (Abraham, 2019; Merrill, 2018). While some studies claim wellness programs have no effects on health outcomes (Song & Baicker, 2019), such studies have been criticised for being too narrowly focussed on the individual and not enough on the organisational environment (Abraham, 2019). Yet, the adoption of health and wellness programs is one way in which organisations have attempted to address and promote health and well-being. Scholars from a range of disciplines including medicine, psychology, and management, have investigated such initiatives from various perspectives. Some studies have found that participation levels in wellness programs lead to a range of desirable employee and organisational outcomes (Ott-Holland et al., 2019), while other studies suggest that the mere existence of health and wellness programs can influence outcomes regardless of whether an employee participates or not (Goetzel et al., 2019; Parks & Steelman, 2008).

While it has been argued that wellness programs do not address underlying organisational problems, others have argued that offering wellness programs, as part of a wider culture of health, can be viewed as a message to employees, showing that the organisation cares for their health and well-being (Safeer & Allen, 2019). In this respect, beneficial outcomes can be obtained from wellness programs even when employees do not participate due to the supportive message such programs convey (Safeer & Allen, 2019). It might be that the presence of a health and wellness program alone can bring about positive outcomes due to the way employees perceive the message this sends. However, employees will interpret this message differently and thus make attributions about the organisational motivations (positive or negative) for implementing health and wellness programs (Nishii et al., 2008). In extending this argument, based on the job demands-resources (JD-R) model (Bakker et al., 2005), it is argued that health and wellness efforts can decrease the negative consequences of job demands on employee outcomes. This thesis is unique in its focus, which moves beyond participation, and instead investigates the impact of wellness program availability in the stress process for employees. Moreover, to address the current knowledge gaps, the question guiding this research was; what role do attributions about wellness programs play in the relationship between job demands and employee outcomes?

## **1.2 AIMS OF THE THESIS**

The aim of this thesis is to examine the direct effects and the moderating effects of wellness program attributions on the following employee outcomes; psychological strain, job dissatisfaction, turnover intentions, job burnout, and days impaired, taking into account the effects of demographics, dispositional and management cynicism and past participation in wellness programs. In addition, for those who had attended their organisation's wellness program, it was investigated if the four wellness program attributions predict the way in which such programs are evaluated in terms of satisfaction, recommendation to others, and needs met.

## **1.3 METHODOLOGY OVERVIEW**

To examine the role of attributions about wellness programs in the relationship between job demands and employee outcomes, data were collected through an online survey of 528 Australian employees. Specifically, the survey targeted full-time and

part-time employees who were employed on a permanent or temporary basis. Employees who had access to a wellness program within their organisation were eligible to participate. Correlations and hierarchical regression analyses were performed to test the hypotheses of the study. Specifically, multiple hierarchical regression analyses were used to test the interaction effects of job demands and attributions on employee outcomes.

#### **1.4 THESIS OUTLINE**

The outline of this thesis is as follows: the above introduction chapter provides background for this thesis, highlights the current gaps in literature, and justifies the research question and hypotheses pursued. Chapter Two, is a review and evaluation of the literature across the three main bodies of work relevant for the topic of this research; health and wellness programs, occupational stress with a focus on job demands and job resources, and Human Resource (HR) attributions. In doing so, Chapter Two identifies current research gaps, and theoretical perspectives, which in turn lead to the hypotheses for the thesis. Chapter Three outlines the research design and methodology chosen, as well as information about the sampling procedure, survey design, and measurement scales. Chapter Four presents the results of the analyses. Chapter Five discusses the findings with references to literature and covers implications for both theory and practice. Last limitations and directions for future research are delineated.

# Chapter 2: Literature Review

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This chapter reviews and synthesises the literature across three main areas of research: (1) health and wellness programs, (2) occupational stress with a focus on job demands-resources, and (3) HR attributions. Relevant literature on cynicism also is acknowledged. The conceptual model and the hypotheses guiding this research are formed based on a number of identified theoretical gaps.

## 2.1 HEALTH AND WELLNESS PROGRAMS – DEFINITIONS AND TYPES

Organisations are continuing their focus on the improvement of employee health and well-being through the adoption of health and wellness programs (Ott-Holland et al., 2019; Parks & Steelman, 2008; Song & Baicker, 2019). It is estimated that 92% of US-based organisations with  $\geq 200$  employees offer some type of wellness program to their employees (Kim, Hollensbe, Schwoerer, & Halbesleben, 2015). In fact, more generally, the current emphasis on well-being is demonstrated by the 2019 New Zealand budget, which places greater emphasis on aspects related to the well-being of its citizens than on productivity and economic growth, therefore gaining the nickname “Well-being Budget” (The Sydney Morning Herald, 2019). In Australia, organisations have witnessed a significant increase in investment in corporate wellness programs (Spark & Osborne, 2016), with many employers (69.9%) developing and implementing a formalised strategy around creating healthy workers which incorporates the entire workforce (BUPA, 2015).

On the whole, organisations appear to be implementing health and wellness programs in the hope to genuinely assist their workforce, however it should be acknowledged that, in other contexts, the underlying organisational motivations may differ and be less one-sided. As a case in point, in the US context, where health care costs primarily fall on the employer, the interest in investment into employee health and wellness has been propelled by the ongoing and drastic increase in health care related expenses (Ott-Holland et al., 2019; Song & Baicker, 2019). This raises the question whether organisations are adopting health and wellness programs as a reactive solution. In fact, the use of wellness programs has been criticised due to their application in place of more effective and preventative strategies, such as job re-



design, targeted at fixing the workplace and any core institutional issues. Accepting these arguments and acknowledging that prevention measures are critical, this thesis takes the view that wellness programs can still play a role and may, in some cases, be the only avenue for some individuals to access such services. Furthermore, in the Australian context, wellness programs go some way towards meeting the employer's legal obligation to prevent and manage psychosocial risk in the workplace.

In the academic literature, health and wellness programs have been investigated by a number of disciplines including medicine, psychology, management, marketing, and Human Resource Management (HRM). As such, it is perhaps not surprising that wellness programs have been defined and investigated in multiple ways. This could in part be due to the plethora of interventions and content delivered through health and wellness programs spanning from disease prevention and/or disease management, exercise and nutrition, alcohol and smoking cessation, mental health, sleep and fatigue, and financial well-being (Berry, Mirabito, & Baun, 2010). A review of the literature in this area identified five main labels and definitions; *Employee Assistance Programs* (EAP), *Employee Health Management Programs* (EHMP), *Workplace Wellness Programs* (WWP), *Workplace Health Promotion* (WHP), and *Total Worker Health* (TWH). Each of these terms is explained in the following sections.

From a historical perspective, early intervention programs were focussed mainly on employee health and safety in particular injury and accident prevention (DeGroot & Kiker, 2003). Later programs, also known as EAPs, initially focused on existing health issues such as drug and alcohol abuse (DeGroot & Kiker, 2003) through the provision of consulting and counselling services (Kirk & Brown, 2003). Such early EAPs were more reactive and focused on problematic employees. However, with time, EAPs have transformed, at least in the Australian context, to cover more broadly the prevention and treatment of employee health, stemming from within or outside the workplace (Kirk & Brown, 2003). Controversy still remains as to exactly how EAPs are defined, with some scholars adhering to early definitions while some see EAPs as containing a long-term preventative element (DeGroot & Kiker, 2003).

In their meta-analysis, DeGroot and Kiker (2003) investigated EHMPs and highlighted the need for an accepted definition of these. Drawing on Wolfe, Ulrich, and Parker (1987), in contrast to the early and reactive EAPs, the authors defined EHMPs as preventative and long-term efforts dedicated to optimise the health of the

workforce. Types of EHMPs include, but are not limited to, smoking cessation, stress management, nutritional and weight-control interventions. However, over time, the focus of health promotion programs has transformed to a version with the broader aim of improving employee health and well-being more generally. These more holistic programs focus on “[...] employee psychological, mental, and emotional health, regardless of the current health status of the employee” (DeGroot & Kiker, 2003, p. 57).

Another definition is found in the paper by Abraham (2019, p. 1462), who used the label WWP and defined these as “a coordinated set of activities that support employees in making changes to health behaviours that may reduce their risk for certain chronic conditions and enable employees with existing diagnoses to manage them more effectively.” Similarly, Swayze and Burke (2013) summed up workplace wellness programs as interventions, policies or activities aimed to improve worker health. Specific examples of activities include coaching, screenings, fairs, fitness facilities, healthy food vending machines, and educational activities such as newsletters and seminars (Swayze & Burke, 2013).

Apart from WWPs, a number of authors have used the term WHP. Nöhammer, Schusterschitz, and Stummer (2013) defined WHP as employer, employee, and societal efforts to advance workers’ health and well-being. Dickson-Swift, Fox, Marshall, Welch, and Willis (2014, p. 139) explained WHP programmes as “any activity that aims to improve or promote the physical or mental health and wellbeing of employees in their workplace.” This definition is clearer and more all-encompassing than the term WWP explained above, which, although focussed on health, did not specifically mention well-being or mental health. WHP efforts cover initiatives and programs that comprise exercise, nutrition training, health screening and education, and occupational health services (Dailey & Zhu, 2017). Ott-Holland et al. (2019) listed health information campaigns, employer sponsored physical fitness facilities, and wellness coaching as examples of WHP interventions and classified wellness programs as a discretionary HR practice.

A fifth definition identified was TWH, which was trademarked by the US-based National Institute for Occupational Safety and Health (NIOSH) in 2011, in an effort to encourage the implementation of comprehensive programs that reduce injuries and risk factors more generally (NIOSH, 2012). Three primary issues are at the heart of TWH:

namely protecting worker health and safety, preserving human resources, and promoting health and well-being (Schill & Chosewood, 2013). TWH encompasses organisational programs, policies, and practices that both include health and safety as well as injury and illness prevention efforts (Tamers et al., 2019). TWH programs, specifically, consist of both traditional occupational health and safety, and well-being initiatives (Anger et al., 2015), which aim to change individual behaviours, through interventions such as organisational structure changes, job redesign, educational classes and trainings, health risk assessments, and meditation. The notable difference in the TWH definition from the previous terms is the inclusion of interventions that change the work environment such as structural and job design changes. The alternative definitions described above all primarily cover programs which include offers that target individual behaviour such as education and health screenings.

Some advantages gained by combining occupational health and safety and wellness efforts, include better participation rates and health behaviours, and a reduction in injury rates, health care and administrations costs (Watkins, Macy, Golla, Lartey, & Basham, 2018). Research into TWH has shown that tailored interventions can improve health, safety and well-being (Anger et al., 2018). Specifically, evaluating interventions such as computer-based training, behaviour self-monitoring and “get healthier” scripted training, Anger et al. (2018) established improvements in exercise frequency, healthy diet support, sleep duration, and reduction in sugary foods and drinks. Further, the same study found significant improvements in family-supportive supervisor behaviours as well as in team cohesion, showing that advantages reach beyond health-related outcomes. Moreover, in a randomised controlled trial, Peters et al. (2018) found that the participants in an ergonomics intervention had significant improvement in terms of less incidences of pain and injury, better ergonomic practices, decrease in physically demanding work, more recreational physical activity, and higher rates of fruit and vegetable consumption.

Definitions and types of health and wellness programs appear to differ both over time and across disciplines, as do the labels used to describe them. Additionally, a discrepancy exists in relation to how health and wellness programs have been classified. Based on the initiatives provided through wellness programs, these have been categorised into various groups including; fitness only, educational only, comprehensive, screening-focused, prevention-focused, intervention-focused, limited,

primary interventions, secondary interventions, or tertiary interventions. These groupings are briefly explained below.

In their meta-analysis, Parks and Steelman (2008) examined organisational wellness programs and divided these into three broad categories; fitness only, educational only, and comprehensive. Fitness only activities include sponsored gym membership, whereas educational activities include stress reduction and nutrition classes. Programs of the comprehensive category include both fitness and educational activities. According to these authors, the majority of studies have examined ‘fitness only’ programs aimed specifically at physical health. Huang et al. (2016) offered another categorisation, dividing wellness programs into a total of five categories based on the configuration of services offered: screening-focused, prevention-focused, intervention-focused, comprehensive, limited.

As the name implies, screening-focused programs are primarily made up of services such as health assessments, blood pressure, body mass index, cancer and other screening initiatives, while only limited services are provided that deal with disease and lifestyle management (Huang et al., 2016). Intervention-focused programs concentrate on managing disease and lifestyle issues through the offer of services such as stress management programs, health education, fitness programs, depression support, and diabetes management programs (Huang et al., 2016). However, intervention-focused programs offer little in the way of screening services. Prevention-focused programs offer a variety of services to screen for and manage lifestyle and behavioural issues (Huang et al., 2016). These programs offer health risk assessments, blood pressure tests, alcohol and drug abuse counselling, fitness programs, and health educations. Absent from prevention-focused programs are disease management services. Comprehensive programs offer services including disease management, lifestyle and risk factor management, and screening services (Huang et al., 2016). However, limited programs offer only a few selected screening and lifestyle management services.

Moreover, from an occupational health psychology and workplace stress management perspective and based on earlier work (Murphy, 1988), Tetrick and Quick (2011) divided health promotion interventions into three groups; primary, secondary and tertiary. Interventions of a primary type are described as proactive and aimed at prevention and promotion of health for the entire workforce of an organisation.

Secondary interventions can be proactive or potentially reactive given their prevention and risk removal focus, which is directed at organisational risk factors and/or employees at risk. Tertiary interventions are purely reactive and limited in their scope to offer specific treatment and assistance services to employees in need. As such, wellness programs, given their more preventative and broad focus targeting the entire workforce, have been considered a primary or secondary intervention type (Tetrick & Quick, 2011; Tetrick & Winslow, 2015). On the other hand, pure stress management interventions are considered as tertiary due to the treatment and repair aims of such programs, which are aimed at employees experiencing health and well-being issues.

Upon evaluating the various descriptions of wellness programs presented above, it remains clear that no single definition exists. It also is evident that a plethora of elements make up the content of wellness programs. This, in turn, makes the evaluation of their effectiveness multi-faceted and adds a level of complication to consider. For this research, the labels health and wellness program and wellness program were used interchangeably with both referring to the overall program offered by employers to their employees. The definition of a wellness program was kept broad and encompassed any initiative provided to assist and improve employee health and well-being including offers aimed at physical health, mental health, financial health, and overall well-being.

## **2.2 EFFECTIVENESS OF HEALTH AND WELLNESS PROGRAMS**

When reviewing the diverse literature on wellness programs, the outcomes covered can be divided into three broad categories; 1) employee health-related improvements, 2) employee job-related outcomes, and 3) organisational outcomes. Each of these is further described below.

### **2.2.1 Health Improvements**

#### **2.2.1.1 Physical improvements**

It appears that the vast majority of studies on the topic of wellness programs have investigated health promotion interventions that specifically address physical health outcomes (Abraham, 2019; Song & Baicker, 2019). For example, scholars have established a connection between participation in wellness programs and various physical health indicators such as blood pressure, weight, and cholesterol (Anger et al., 2015; Conn, Hafdahl, Cooper, Brown, & Lusk, 2009; Swayze & Burke, 2013). In

their meta-analysis of workplace physical health interventions, Conn et al. (2009) included interventions such as educational, motivational, and supervised exercise sessions, and found that significant positive results were achieved in terms of physical health behaviour, fitness, lipids, and anthropometric measures.

LeCheminant, Merrill, and Masterson (2017) investigated school-based employees over a 2-years period and their participation in a worksite wellness program. The authors focussed on mental health and job-related outcomes, as well as changes in health behaviours. The findings showed, although smoking increased for some, improvement was found in the amount of exercise, fruit and vegetables consumption, restful sleep, as well as declines in consumption of alcohol for participants. Another study by Lowensteyn et al. (2018) examined a comprehensive wellness program in Canada over six weeks and found significant improvements in blood pressure one year after participation. More recently, Song and Baicker (2019) examined a multicomponent wellness program over 18 months in the US. The results showed a significant increase in positive self-reported health behaviours for those employees who took part in the wellness program.

### **2.2.1.2 Psychological improvements**

While interventions aimed at physical health are important, these make up only part of the health and wellness initiatives offered by many organisations. As noted by Ott-Holland et al. (2019), many employers now view well-being as a holistic concept which also incorporates mental and even financial health. In a meta-analysis, Goyal et al. (2014) examined mindfulness meditation programs and found that attendance in such programs resulted in moderate reduction in anxiety and depression. Among other improvements, Page and Vella-Brodrick (2013) found that those who participated in a ‘working for wellness program’, aimed to help identify employees’ strengths, craft jobs, and cultivate relationships to improve well-being, had higher affective well-being post attendance than those who had not taken part in the program. Other research, examining US police officers participating in an 8-week Mindfulness-Based Resilience Training program, found that, in relation to job content, both organisational stress and operational stress was reduced (Bergman, Christopher, & Bowen, 2016).

In a systematic meta-review on workplace mental health interventions, Joyce et al. (2016) outlined that interventions such as WHP and WWPs, somewhat improved mental health. Moreover, a study by Lowensteyn et al. (2018) found decreases in poor

sleep, emotional stress, and fatigue one year post participation. Further, the authors found a “positive dose-response”, that is, the more respondents participated, the better outcomes were achieved. Further to the physical outcomes mentioned above, in relation to mental health outcomes, LeCheminant et al. (2017) found a number of modest improvements concerning stress, depression and life satisfaction (LeCheminant et al., 2017).

## **2.2.2 Employee Job-Related Outcomes**

### **2.2.2.1 Attitudinal outcomes**

In the research that looks beyond health outcomes, some examples include attitudinal outcomes such as organisational commitment (Caillier, 2013; Sanders & Yang, 2016), job involvement (Caillier, 2013), and job satisfaction (Ott-Holland et al., 2019; Parks & Steelman, 2008). These studies draw on Social Exchange Theory (SET) or Perceived Organisational Support (POS) to explain why wellness programs influence such outcomes.

According to SET, organisational benefits can positively affect attitudinal and behavioural outcomes. That is, based on norms of reciprocity inherent in SET, HRM practices will make employees feel cared for and thereby inclined to respond in kind, thus increasing employees engagement (Alfes, Shantz, Truss, & Soane, 2013). Through a review of previous work, Grawitch and Ballard (2016) illustrated that physically healthy work practices can generate employee well-being including better satisfaction and engagement. More recently, Caillier (2017) found that those who participated in their organisation’s health and wellness programs exhibited higher levels of satisfaction with their job and organisation. Another more recent example is the study by Ott-Holland et al. (2019) that examined how participation in a physical health program affects job satisfaction, as well as other outcomes, finding that job satisfaction was increased as a result of participation.

### **2.2.2.2 Intention and behavioural outcomes**

Wellness programs also have been linked to turnover intentions (Ott-Holland et al., 2019) and to work-related behavioural outcomes such as innovative behaviour (Sanders & Yang, 2016), absenteeism (DeGroot & Kiker, 2003; Dickson-Swift et al., 2014; Kuoppala, 2008; Parks & Steelman, 2008), effectiveness (Lin & Lin, 2014), productivity at work (Kumar, McCalla, & Lybeck, 2009; Rajaratnam, Sears, Shi,

Coberley, & Pope, 2014). In a study examining EHMPs, DeGroot and Kiker (2003) found that non-voluntary comprehensive programs were positively related to absenteeism, whereas voluntary programs were negatively related to absenteeism. In a meta-analysis on WHP, Kuoppala (2008) discovered that WHP activities such as exercise, ergonomics and lifestyle services were possibly effective in reducing sickness absences. Sanders and Yang (2016) examined high-commitment HRM, which comprise of HR practices such as employment security, selective recruitment, employee involvement, and innovative behaviour in a cross-level field study. The authors defined innovative behaviours as ‘the development and implementation of new ideas’ (Sanders & Yang, 2016, p. 202), and found a positive association between high-commitment HRM and innovative behaviour.

A more recent example, is the study by Ott-Holland et al. (2019), which, in addition to job satisfaction as mentioned above, examined how participation affects intentions to stay, performance ratings and actual turnover. The study found that participation lead to higher levels of intention to stay, better performance ratings, and lower actual turnover.

### **2.2.3 Organisational Outcomes**

From an organisational perspective, the favourable outcomes expected from wellness programs also relate to fiscal and value measures such as corporate image improvement and the attraction and retention of talent (Dickson-Swift et al., 2014). Other examples of organisational outcomes include cost reduction (reduced health insurance premiums, compensation, health and disability) (Anand Keller, Lehmann, & Milligan, 2009; Baicker, Cutler, & Song, 2010; Pelletier, 2011), return-on-investment (Anger et al., 2015; Dement, Epling, Joyner, & Cavanaugh, 2015; Goetzel et al., 2014), and better stock performance (Goetzel et al., 2019; Grossmeier et al., 2016). However, in spite of the literature documenting the relationship between wellness programs and organisational outcomes, it has been argued that many of these studies are limited due to shortcoming in their methodologies (Ott-Holland et al., 2019).

For example, in regards to financial returns, Song and Baicker (2019) found no substantial differences in organisational health care spending between those exposed and not exposed to a wellness program. However, as noted earlier, this study focussed very narrowly on the individual as opposed to the work environment. Additionally,



many studies investigating organisational outcomes have relied on self-reported measures of productivity and used cross-sectional research or case study research designs, making the findings less dependable than had measures been obtained from multiple sources over an extended period of time (Ott-Holland et al., 2019). In addition, only few observational and now dated intervention studies exist regarding economic and health outcomes and these have produced varying results due to issues relating to controls groups, sample size, selection bias and length of the study (Song & Baicker, 2019). For example, in linking wellness practices to stock market performance, the authors highlight the potential for other factors to be considered as a cause for the results (Grossmeier et al., 2016) and concerns about reverse causation (Goetzel et al., 2019). Although it is worth noting these limitations, a similar argument can be made for other studies linking the presence of wellness programs to other types of outcomes, given the research methods used. In sum, in the research investigating wellness programs and organisational outcomes, the results vary regarding the extent to which a positive connection exists.

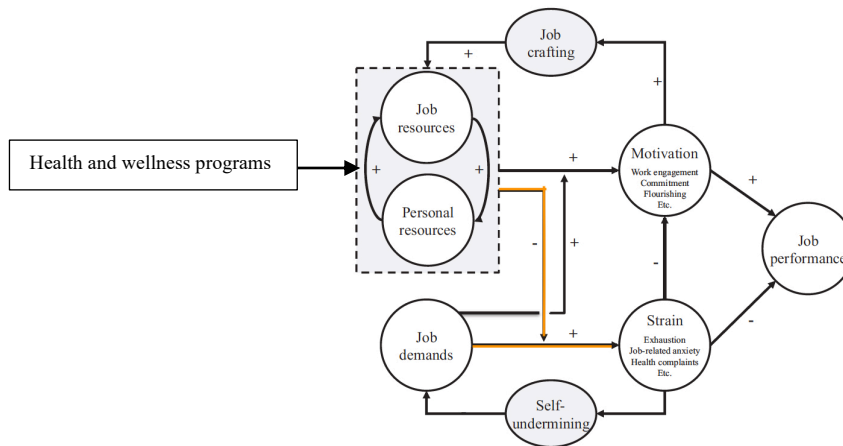
### **2.3 WELLNESS PROGRAMS AND JOB DEMANDS**

Abraham (2019) noted that organisations are choosing to implement and invest in wellness programs because it is assumed that such programs will bring about health improvements in their workforce and have subsequent economic benefits. At the same time, some organisations are also implementing various health and stress management interventions to overcome some of the negative effects caused by job demands (Tetrick & Winslow, 2015).

Job demands are defined as social, physical, or organisational dimensions of the job which require continuous effort both mentally and physically (Crawford, Lepine, & Rich, 2010). As mentioned by Nahrgang, Morgeson, and Hofmann (2011), when an employee does not recover sufficiently from the exertion to meet these demands, these may develop into job stressors. According to the job demands-resources (JD-R) model (Bakker et al., 2005), job demands are responsible for an energy depletion process in which an employee experiences a reduction in energy and increase in stress from continually striving to meet perceived demands (Bakker & Demerouti, 2017; Crawford et al., 2010). Job resources are aspects that assist in reducing the physical and psychological consequences of job demands, help achieve work goals, and encourage learning, development and personal growth (Bakker & Demerouti, 2017).

According to JD-R theory, job demands and job resources each bring about different consequences. On the one hand, job demands set in motion a process that leads to impairment of health, while job resources initiate a motivational process that leads to engagement. Additionally, job resources can lessen the negative effects of job demands on strain outcomes, and are particularly effective under conditions when they are most required, that is, under high job demands (Bakker & Demerouti, 2017).

Figure 1. Adapted job demands-resources model: inclusion of health and wellness programs



Source: Bakker and Demerouti (2017)

In line with the JD-R framework, organisational investment in wellness programs can act as a type of job resource for employees and might act to reduce risk factors and work strain and thereby increase employees quality of life (Nöhammer et al., 2013). As presented in Figure 1, health and wellness programs can be viewed as a way to increase job and personal resources, which consequently affects the extent to which job demands lead to strain outcomes as per the JD-R model. In fact, many interventions that aim to improve individual and organisational outcomes attempt to do so by improving employees' coping mechanisms, thereby alleviating the perception of occupational stressors (Danna & Griffin, 1999).

The stress management literature offers prime examples of such interventions. In particular, primary and secondary prevention inventions such as health promotion activities, self-awareness training and relaxation techniques to help individuals cope with stressors by extending their physical and psychological resources are common (Cooper & Cartwright, 1997; Tetrick & Winslow, 2015). Some studies taking this view also apply Conservation of Resources (COR) theory (Hobfoll, 1989). Grounded in an evolutionary-based view of cognition, this theory underscores the predisposition for

humans to place disproportionately more emphasis on resource loss than on resource gain, because of the inherent drive to safeguard, gain and foster things of central value (Hobfoll, Halbesleben, Neveu, & Westman, 2018). The second principle of COR theory states that individuals must invest resources to protect, recover and gain resources. While the third principle outlines that resource gain becomes increasingly important in contexts where resource loss is prominent. The final and fourth principle of COR covers the notion of desperation, declaring that an individual will become defensive, irrational or aggressive when resources are depleted or outstretched.

### **2.3.1 Wellness programs as a job resource**

In relation to resources, COR theory identified four types namely object, condition, personal, and energy resources (Hobfoll et al., 2018). In the context of work, COR theory has been applied to explain why stressors, such as ongoing challenging demands, result in depletion of personal and energy resources and thereby in burnout (Kim, Hollensbe, Schwoerer, & Halbesleben, 2015). In line with this theory, wellness programs can increase employees' personal resources and thereby offset the undesirable consequences of job demands on outcomes such as psychological strain and decreased employee well-being (Tetrick & Winslow, 2015).

Ott-Holland et al. (2019) suggested that an investigation of work attitudes and behaviours can improve understanding of how wellness programs and organisational effectiveness are potentially connected. Based on COR theory, the authors posited that participation in a wellness program could increase personal resources (self-efficacy, energy, feelings) and protect against negative influences from the working environment. For example, it was reasoned that by taking part in a mindfulness program, employees build skills to cope better with stress. Similarly, earlier research by Kim et al. (2015), proposed that a wellness program acted as a way for participants to increase resources, in line with COR theory principles, which consequently lead to a gains spiral. Specifically, the authors tested whether participation in a 10-day wellness program resulted in spiritual, physical, vocational and financial improvements six months post participation. Their study found that wellness self-efficacy improved for those who had participated in the wellness program, which over time resulted in increased career satisfaction and psychological availability. Although questions can be raised about generalisability due to issues regarding the sample size and target group, which were 160 priests, the findings do suggest that health and

wellness programs can be viewed as a way to increase employees' job and personal resources, which consequently affects the extent to which job demands lead to strain outcomes as per the job demands-resources (JD-R) model (Bakker et al., 2005).

Many previous studies have focused specifically on participation in health and wellness initiatives, while overlooking the potential impact such initiatives can have regardless of attendance. Indeed, Safeer and Allen (2019) suggested that organisations could reap the benefits of a general culture of health, of which a wellness program is a vital part, regardless of whether employees actually attend these programs.

Although scarce, past studies have examined the link between availability of wellness programs and employee attitudes through the lens of POS. Grounded in the concepts of SET, POS is the extent to which employees feel valued and cared for by their organisation (Eisenberger, Huntington, Hutchison, & Sowa, 1986). When employees have high POS (feel valued and cared for) they are likely to be more committed (Rhoades, Eisenberger, & Armeli, 2001). From this perspective, the availability of wellness programs has been found to be associated with more favourable attitudes towards the company, and higher job satisfaction compared to organisations that do not offer such programs (Ho, 1997; Patterson, Warr, & West, 2004).

In line these findings, it is likely that the mere presence of a wellness program, regardless of employee participation, can act as resource and impact how well employees cope with job demands on a day-to-day basis. In this respect, scholars have underlined that HR practices, which include wellness programs, can be viewed as messages to employees and that employees attach meaning to these (Chen & Wang, 2014; Hewett, Shantz, Mundy, & Alfes, 2018; Sanders & Yang, 2016). However, employees will interpret the existence of HR practices as a signal, positive or negative, from the organisation. As such, employees might not interpret these as intended. In other words, although it can be assumed that most organisations are providing wellness programs in the hope to convey messages of support, it should be acknowledged that such programs might instead create negative perceptions. In particular, scholars have noted that wellness programs might raise concerns about invasion of privacy, or be seen as merely good company public relations, or as a quick-fix solution (Madison, 2016; Mujtaba & Cavico, 2013; Plump & Ketchen Jr, 2016). However, what has thus far been largely neglected in the literature is the role played by employee perceptions

concerning why wellness programs are offered in the first place (Caillier, 2013; Groen et al., 2017; Kim et al., 2015; Li, Frenkel, & Sanders, 2011).

In the stress and coping literature, this proposition is not dissimilar to the concept of perceived availability of coping resources (Ashford, 1988). The noteworthy aspect of perceived availability of resources is that an individual does not have to use a resource in order for it to be effective and receive its benefits. That is, knowing and perceiving that such resources are accessible can be sufficient to alleviate perceived demands. Applying this theory, as well as the arguments by Safeer and Allen (2019) to this thesis, it is proposed that wellness programs act as a resource, in part due to the message of support this conveys from the organisation to the employees, regardless of attendance. However, it is possible that each employee will interpret this message differently and even contrary to the planned organisational intent. To examine employee interpretations of the organisational intent behind wellness programs this thesis drew on the concept of HR attributions by Nishii et al. (2008).

## **2.4 HR ATTRIBUTIONS**

This year the *Journal of Organisational Behaviour* published a special issue specifically focused on attribution theory and promoted its application to the organisational behaviour discipline (Martinko & Mackey, 2019). Whereas social psychologists have often applied both attribution and attributional theories, organisational sciences are yet to fully realise the potential of this lens to explain workplace behaviours (Hewett et al., 2018; Martinko, Harvey, & Dasborough, 2011; Martinko & Mackey, 2019). In one of the papers featured in the special issue, Hewett et al. (2019) examined antecedents to HR attributions. The authors conducted a two-wave survey of academic employees and found that, in forming attributions, fairness and cynicism play an important, as will be further discussed later (section 2.6). Another article featured, was a theoretical paper by Gardner, Karam, Tribble, and Coglisier (2019), which examined leader-follower relationships and proposed the notion of convergent and divergent attributions. As will be highlighted later (section 5.3), the authors argued that combinations of attributions lead to positive or negative outcomes.

In their recent review of 65 papers that used attribution theories to examine HR practices, Hewett et al. (2018) proposed that research into HRM can benefit significantly by applying attribution theories. In particular, valuable insights can be

gained regarding underlying causes for the outcomes achieved from HR practices. The authors synthesised the existing research into three types based on the theoretical perspective they apply. The first type focuses on the perceptions employees make about the characteristics of the HR practices, which in turn results in different responses to them. The second group also examines responses to HR practices, however, does so through the investigation of internal and external causal attributions. The third and final cluster, similar to the purpose of this thesis, explores the attributions employees make about the intent behind HR practices.

Scholars have underlined that HR practices, which include wellness programs, can be viewed as messages to employees and that employees attach meaning to these (Chen & Wang, 2014; Hewett et al., 2018; Sanders & Yang, 2016). Regardless of whether they participate in wellness programs, employees will interpret the existence of programs as a signal, positive or negative, from the organisation. As such, although the organisational intentions behind HR practices might be of a well-intended nature, employees might not interpret these as intended, which provides an alternative explanation for the varying individual and organisational outcomes achieved via HR practices (Hewett et al., 2018; Sanders & Yang, 2016).

In terms of wellness programs, what has thus far been largely neglected is the role played by employee perceptions concerning why such programs are offered in the first place (Caillier, 2013; Groen et al., 2017; Kim et al., 2015; Li et al., 2011). In fact, examining such perceptions could unpack, in greater detail, the relationship between HR practices and employee and organisational outcomes as suggested by Nishii et al. (2008) and Malik, Singh, and Chan (2017). For example, in their paper, Ott-Holland et al. (2019) drew on POS to test whether participation in wellness programs was influenced by the value employees place on wellness. Specifically, the authors proposed that “participation in wellness programs is influenced by employee beliefs about their value and about organisational support for wellness” (Ott-Holland et al., 2019, p. 176). Although Ott-Holland et al. (2019) indicated that there may be more to the health and wellness program effectiveness equation than previously assumed through the inclusion of employee beliefs in their study, their measure of this concept was limited to a general assessment of the personal valence of such programs. The study did not consider employees’ beliefs about the organisation’s motivation for

offering wellness programs, even though such inclusion hold potential both in relation to participation but also regarding the outcomes realised.

Providing a construct to capture perceived motivations, Nishii et al. (2008) presented the idea of Human Resource (HR) attributions, which is explained as “attributions they [employees] make about management’s purpose in implementing the actual HR practices.” (p. 505). This notion is based partly on theories about attributions which comprise two aspects i) the *antecedents* of attributions and ii) the *consequences* of attributions (Kelley & Michela, 1980). The term “attribution theory” has primarily been used when examining the antecedents, while the term “attributional theory” deals with the study of consequences. It is the latter of these that is particularly interesting and useful in the context of wellness programs. Attributions at their most basic level concern the way individuals explain the behaviours of others and themselves (Fiske & Taylor, 1984).

Attribution theory delineates the process by which individuals make sense of social stimuli, and infer causal relationships, which in turn influences attitudinal and behavioural responses (Fiske & Taylor, 1984). As part of the process of attributions, it has been theorised that one stage is shaped by previous experiences and are of a dispositional nature, which the individual is almost unaware of. The second stage of the process takes into consideration situational factors, which happens on a more conscious level and can be used to check whether the initial dispositional attributions are correct or not (Fiske & Taylor, 1984). As a result of this process, and the attributions made, an individual’s responses might differ depending on the meaning they attach to the stimuli. In the case of HR practices, how employees interpret and make sense of these practices will produce different behavioural responses subject to variation in interpretations. On this basis, Nishii et al. (2008) developed what they called HR attributions.

As shown in the typology of HR attributions in Figure 2, Nishii et al. (2008) ascribed the internal attributions into the organisational strategy and/or employee philosophy believed to instigate the HR practice. Consequently, attributions were grouped into five specific types; service quality, cost-reduction, employee well-being, exploiting employees and union compliance. Moreover, these HR attributions have been divided into four dimensions: *internal* - stemming from within the organisation, *external* - coming from outside of the organisation, *commitment-focused*, and *control-*

*focused* (Chen & Wang, 2014; Fontinha, José Chambel, & De Cuyper, 2012; Hewett et al., 2018). Each of the original HR attributions by Nishii et al. (2008) will be briefly described in the following sections, including which dimension they belong to.

The internal attributions grouped into the organisational strategy category are service quality and cost-reduction. The service quality attribution is explained as the perception that the HR practice has been offered with the intent to realise the strategic goal of enhancing the level of service quality. This strategy views workers as assets and entails, among other things, fostering greater commitment from employees, high employee participation in decisions to do with the job and working conditions, egalitarian treatment of workers, and continuous and extensive training opportunities (Schuler & Jackson, 2014). Consequently, the service quality attribution is also considered a commitment-focused type.

Another internal attribution is cost-reduction and as the name implied this is due to the organisational strategy believed to underlie the practice offered. The cost-reduction strategy perceives employees as costs and necessitates that the firm adopts HRM practices such as short-term performance results-based appraisals, narrowly defined jobs, and limited training and development opportunities, to foster the behaviours needed to realise the strategy (Schuler & Jackson, 2014). As a result, the cost-reduction attribution type is considered to be control-focused.

Turning to the other dimension of the internal attributions, the organisation's employee philosophy, the first of these is employee well-being. This attribution covers the perception that the company has implemented its HRM practices to maximise the well-being of its workers as the main concern. Thus, this attribution is of the commitment-focused kind. The other employee philosophy attribution is exploiting employees. Someone with this attribution sees the intent behind HRM practices as being to exploit workers and maximise efficiency. For example, a wellness program might be viewed as a way to get workers healthy so they can do more work and be better employees, as opposed to make them healthier, happier, and thriving people at work and outside of it.



Figure 2. Adapted typology of HR attributions

	Internal attributions		External attribution
	Business/strategic goal underlying HR	Employee-oriented philosophy	
Commitment-focused	Service quality	Employee well-being	Compliance
Control-focused	Cost reduction	Exploiting employees	Image

Source: Nishii et al. (2008)

The final attribution in the original typology is union compliance, which is considered an external attribution. In other words, an individual might perceive that the HR practice is provided to comply with pressures from outside the organisation such as union directives. The inclusion of additional external dimensions, such as reporting requirements, is supported by Hewett et al. (2019) who believes external attributions are multidimensional and likely to depend on the organisational context and HR practice being examined. The same authors include both union compliance and external reporting requirements in their study. Similarly, this thesis included a compliance dimension, however, given the Australian context, government organisational health and safety legislation was also incorporated. Consequently, this attribution was labelled *compliance*, capturing both union and government regulatory compliance.

In addition to the external attribution of compliance, it also is relevant to consider other external pressures, including an image driven dimension as a potential attribution. That is the aspect of competitiveness with other organisations and the employer of choice phenomenon, which create a need to ‘keep up’ in order to maintain and create a positive corporate image in the marketplace. It is plausible that when employees use internal and/or external attributions to understand why their organisation behave the way it does (i.e., offers a wellness program) they may see the external pressure (other companies offering wellness programs) as a motive. The inclusion of impression management is supported by Hewett et al. (2019) who recommended the inclusion of an image management element (Hewett et al., 2019). This additional attribution, called *image*, was included in this thesis and added to the original typology by Nishii et al. (2008) in Figure 2.

An important distinction between previous attributions theories and HR attributions is that the former covers *episodic* events, whereas the latter concerns *ongoing* stimuli. That is, attributional theory explains interpretations of specific events in time, such as the perceptions formed when an employee has a negative confrontation with a colleague. In this case, the employee would form attributions about whether the behaviour from the colleague is caused by personal factors (general personality) or by factors relating to the situation (i.e., work or family pressures). In contrast, HR attributions aim to describe interpretations of ongoing actions such as how employees perceive causes behind the HR practices offered on a continuous basis.

Combining attribution theory with strategic HR theories, scholars have started to explain the differences in how employees interpret and respond to HR practices (Bowen & Ostroff, 2004; Hewett et al., 2019). Bowen and Ostroff (2004) proposed that when the HRM system (HR practices and process) is not made clear and understandable employees engage in an individual and collective sense-making process, which can result in negative interpretations. Such interpretations might contradict the organisation's goals and intentions, and thereby render the effectiveness of the HR practices unsuccessful. Hewett et al. (2019) recently investigated whether information, beliefs, and motivation acted as antecedents of HR attributions about the specific HR practice of workload measurement and management. The study found that cynicism and fairness were significant in shaping positive attributions (commitment) but less important in forming negative attributions (cost-saving and exploitation).

More broadly, it has been argued that when employee attributions are such that they perceive management's purpose for implementing HR practices as a way to increase service quality and employee well-being, this will result in positive employee attitudes and outcomes. On the contrary, when attributions view HR practices as being offered to reduce costs, this will in turn be negatively related to desired outcomes. Some of the HR practices that have thus far been examined through this lens include teamworking, the HR system, HR analytics, performance evaluations, and employee relations (Hewett et al., 2018). However, none have thus far focused specifically on health and wellness programs.

In relation to outcomes, HR attributions have been linked to affective commitment (Fontinha et al., 2012; Malik et al., 2017; Nishii et al., 2008; Sanders & Yang, 2016), turnover intentions (Malik et al., 2017; Tandung, 2016), POS (Chen &

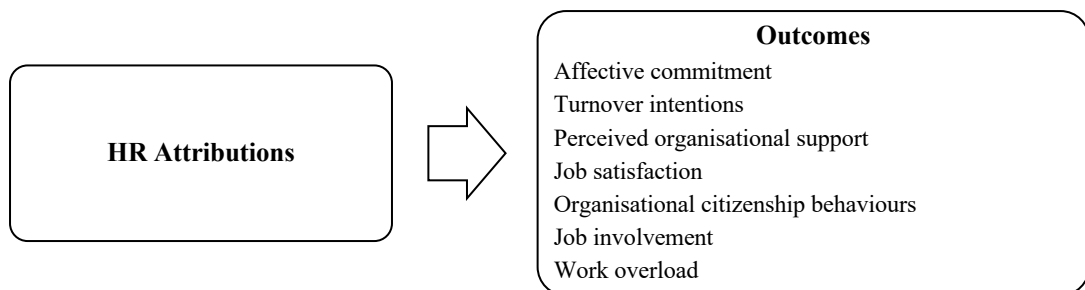
Wang, 2014), job satisfaction (Malik et al., 2017; Nishii et al., 2008), job involvement, work overload (Shantz, Arevshatian, Alfes, & Bailey, 2016), job strain, emotional exhaustion, task performance, performance rating (Hewett et al., 2018), and organisational citizenship behaviours (OCB) (Malik et al., 2017). In their original paper, Nishii et al. (2008) investigated attributions about the following HR practices; training, benefits, staffing, pay, scheduling. They established that service quality attribution and employee well-being attribution were associated with positive employee attitudes, whereas cost reduction and employee exploitation attributions were associated with negative employee attitudes. From these findings, the authors proposed that HR attributions might moderate the influence of HR practices on performance, such that when employees form positive HR attributions desirable performance is delivered from HR practices. The authors called for further research to establish whether HR attributions had a potential moderating role on the HR practice, organisational outcome relationship (Nishii et al., 2008).

In the same study mentioned earlier, Sanders and Yang (2016) examined such moderating effect, and found that the association between high-commitment HRM, (e.g., HR practices such as employment security, selective recruitment, and employee involvement) and innovative behaviour was more marked when employees viewed HRM as very distinctive, consistent and consensual. Specifically, the authors found that when employees perceived the high-commitment HRM practices as intended by management, better affective commitment and innovative behaviour resulted.

Moreover, Chen and Wang (2014) examined attributions about practices such as training, benefits, compensations, and scheduling, finding that commitment-focused attributions were related positively to POS, while control-focused attributions were negatively related to POS. Additionally, results suggested that the relationship between HR attributions and employee outcomes (task performance and turnover intentions) was mediated by POS. Shantz et al. (2016) evaluated well-being and exploitation attributions for five practices including training and development, rewards system, selection process, performance appraisal, and employee participation. Results showed that when these practices are seen as supporting employees' job performance (well-being attribution), higher levels of job involvement is realised. Contrarily, when cost reduction is seen as the true intent behind these practices (i.e., employee exploitation attribution), employees experience greater work overload.

Other scholars, such as Van De Voorde and Beijer (2015), have investigated five practices used as part of a high performance work system (HPWS), namely hiring, development and career opportunities, rewards, performance evaluations, and participation and communication. Participants were asked to rate two attributions for each practice, which were employee well-being attribution and employee exploitation attribution. The authors found that a HPWS could be perceived in two ways; employees are valued, and/or greater performance is expected. Findings also showed that well-being attributions were positively related to organisational commitment and negatively related to strain. Moreover, exploitation attributions were positively associated to strain but not to organisational commitment. Sanders and Yang (2016) also examined the practice of a HPWS and the moderating role of employee attributions. In particular, the authors tested whether better employee outcomes were achieved when HPWS was perceived as consensual; that is, interpreted as intended by the organisation. The authors found that when employees perceived practices as intended, the positive relationship between HPWS and affective commitment was greater.

Figure 3. HR attributions - summary of outcomes studied



In sum, HR attributions have been investigated in various ways. However, with the exception of Sanders and Yang (2016), attributions are yet to be thoroughly examined as moderators of relationships such as between job demands and employee outcomes. Moreover, although HR attributions have been used in connection with various HR practices as illustrated above, they are yet to be applied specifically to the context of wellness programs. This is a substantial theoretical gap, considering the widespread application of wellness programs and the role such perceptions might play in achieving the desired outcomes organisations are aiming for when investing in wellness initiatives.

Based on the concept of perceived availability of resources as well as the arguments by Safeer and Allen (2019) that organisations may reap the benefits of wellness programs regardless of whether employees attend, it is proposed that wellness programs may act as a resource, in part due to the message of support this conveys from the organisation to the employee, regardless of their actual attendance at such programs. Thus, in line with the JD-R model (Bakker et al., 2005), the availability of a wellness program is argued to alleviate the magnitude of the relationship between job demands and employee outcomes through the potential increase in resources this availability may provide. By offering wellness programs, employers may signal that they genuinely value and care about their employees' health and well-being (Hewett et al., 2019) and consequently it is likely that this could moderate (according to POS and SET), if only temporarily, the negative relationship between job demands and employee outcomes. In particular, what is yet to be tested is whether certain attributions about wellness programs can assist in overcoming job demands, and whether other attributions can exacerbate negative effects from psychosocial stressors.

Similar to previous research drawing on HR attribution theory to investigate HR practices, it is possible that attributions about wellness programs play a moderating role in the extent to which job demands have negative consequences for employees. In particular, the focus of this thesis was on wellness program attributions, which is defined as employee perceptions about the organisational motivations behind the practice of wellness programs.

Stress-buffering effects were proposed regarding whether wellness program attributions of a positive nature (employee well-being) buffered the detrimental outcomes of job demands on employee outcomes. For this current study, similar to previous scholars (Hewett et al., 2019), the employee well-being attribution was named *commitment attribution*.

Stress-exacerbating effects were proposed concerning the extent to which wellness program attributions of a negative nature (cost reduction) exacerbated the adverse effects of job demands on employee outcomes. Again as supported by previous research (Hewett et al., 2019), the cost reduction attribution was labelled *control attribution*.

Effects of a more exploratory nature were proposed in regard to the compliance attribution and image attribution. Stress-buffering effects were proposed for the

compliance attribution, such that high levels of compliance attribution were expected to buffer the adverse effects of job demands on employee outcomes. Although Nishii et al. (2008) argued that external attributions (i.e., those prescribed by factors external to the organisation), were likely to be neutral in relation to their effects on employee attitudes, the authors did note the possibility that employees could see efforts to comply with legislation and union requirements as a positive message, conveying that the organisation respects and cares about the rights of their employees. Moreover, the concept of psychosocial safety climate (Dollard et al., 2012) also supports adhering to workplace health legislation and thus providing a sense of psychological safety as well as physical safety is important for psychological health outcomes. Consequently, this is the perspective taken in this current thesis, which leads to the stress-buffering effects proposed for the compliance attribution.

Moreover, stress-exacerbating effects were proposed for the image attribution, such that high levels of image attribution were expected to exacerbate the adverse effects of job demands on employee outcomes. In contrast to the argument concerning compliance attribution, when employees perceive that the organisation is offering a wellness program in order to maintain and create a positive reputation in the marketplace, this can be seen as a way to further organisational interests and thus shows no concern for employees. Consequently, this thesis reasoned that stress-exacerbating effects are to be expected for the image attribution.

In short, the notion of attributions is important because perceptions about the organisational motivations for implementing wellness programs might influence the relationship between job demands and employee outcomes. Thus, this thesis intends to rectify the current gaps identified and respond to the appeals by Kim et al. (2015) and Nishii et al. (2008) to examine “the dynamics through which wellness programs may result in positive employee-related outcomes” (Kim et al., 2015, p. 62). In particular, to test the potential moderating of HR attributions, the question guiding this thesis is; what role do attributions about wellness programs play in the relationship between job demands and employee outcomes? Specifically, this thesis aims to examine whether wellness program attributions play a moderating role between job demands and employee outcomes. The hypotheses forming the basis of this thesis were:

1. Wellness program attributions high on commitment will weaken the deleterious effects of job demands on employee outcomes.
2. Wellness program attributions high on control will strengthen the deleterious effects of job demands on employee outcomes.
3. Wellness program attributions high on compliance will weaken the deleterious effects of job demands on employee outcomes.
4. Wellness program attributions high on image will strengthen the deleterious effects of job demands on employee outcomes.

## **2.5 WELLNESS ATTRIBUTIONS AND WELLNESS PROGRAM EVALUATION**

Although the role of HR attributions for wellness program satisfaction and usefulness has not been addressed in the literature to date, this thesis proposes that attributions employees have about the wellness program are related to the extent to which participants feel satisfied with the program when they do participate. In other words, it is possible that for those who do participate, greater levels of satisfaction are observed when employees have positive wellness program attributions (i.e., commitment-focused). On the contrary, it might be expected that employees with negative wellness program attributions (i.e., control-focused) display lower levels satisfaction post participation.

Evaluations are commonplace in relation to workplace training, where they are used to improve the effectiveness of HR practices such as training (Saks & Burke, 2012). The Kirkpatrick model is largely considered one of the most commonly used organisational training evaluation frameworks (Bates, 2004; Praslova, 2010; Saks & Burke, 2012). Although the Kirkpatrick model includes four elements (reactions, learning, behaviour, and results), it is the evaluation of reactions that has been found to be most applied and collected by organisations (Long, DuBois, & Faley, 2008). The evaluation of reactions, as the name implies, concerns participants' reactions to the program and has been divided into two types: affective and utility responses (Bates, 2004; Saks & Burke, 2012). Affective responses capture the participant's assessment of how satisfied they are, and how much they enjoyed the program. Utility responses measure how useful and relevant participants found the program. Consequently, to

investigate whether the four types of wellness attributions determine post participation reactions, the hypotheses for this thesis were:

5. Wellness program attributions high on commitment will be related to higher levels of wellness program satisfaction and usefulness.
6. Wellness program attributions high on control will be related to lower levels of wellness program satisfaction and usefulness.
7. Wellness program attributions high on compliance will be related to higher levels of wellness program satisfaction and usefulness.
8. Wellness program attributions high on image will be related to lower levels of wellness program satisfaction and usefulness.

## **2.6 THE ROLE OF CYNICISM**

Dispositional characteristics were controlled for since it is possible that cynicism both concerning the organisation specifically, and about the world more generally, could influence attributions about wellness programs and employee outcomes and thereby impact the extent to which these modify job demands on employee outcomes (Hewett et al., 2019). As mentioned previously, Hewett et al. (2019) examined antecedents to HR attributions. Specifically, the authors found that cynicism plays an important role in shaping internal commitment attributions, and a lesser role in the formation of control-focused attributions. Although some variation exists, cynicism has been broadly defined as a general negative outlook on life and the world characterised by dislike and mistrust (Andersson & Bateman, 1997; Guastello, Rieke, Guastello, & Billings, 1992). One construct that captures this cynical worldview is dispositional cynicism. Dispositional cynicism is defined as a constant trait of someone's personality which encompasses negative perceptions about human behaviour (Roberts & Zigarmi, 2014). In organisational research, dispositional cynicism has gained attention as it has been argued to predict job-related outcomes including job satisfaction and organisational commitment (Roberts & Zigarmi, 2014).

As well as cynicism about life more generally, cynicism also has been examined in relation to more specific situations such as the work domain (Stanley, Meyer, & Topolnytsky, 2005). In a meta-analysis, Chiaburu, Peng, Oh, Banks, and Lomeli (2013) found that organisational cynicism was related to turnover intentions,



commitment, and performance. When employees had high levels of organisational cynicism, they had higher turnover intentions, lower commitment, and worse performance. Moreover, in the context of the workplace, Stanley et al. (2005) examined the role of various types of employee cynicism in predicting resistance to changes in the workplace. In particular, the authors included management cynicism, which they defined as mistrust specifically towards management and its motives. The authors suggested that distinctions are made between various types of cynicism in order to prevent misinterpretations of findings and to enable better measurement of cynicism for specific aspects (Stanley et al., 2005).

Although cynicism has been investigated in a myriad of ways, this thesis included dispositional and management cynicism. Cynicism, whether trait-based or situational, is relevant in relation to how employees receive and interpret messages. That is, the more cynical an employee is, the more likely it is that organisational messages (i.e., HR practices) will be assessed negatively. Therefore, both dispositional cynicism and management cynicism were controlled for.

## **2.7 SUMMARY OF THESIS AIMS**

The aim of this thesis is to examine the direct effects and the moderating effects of wellness program attributions on the following employee outcomes; psychological strain, job dissatisfaction, turnover intentions, job burnout, and days impaired, taking into account the effects of demographics, dispositional and management cynicism and past participation in wellness programs. In addition, for those who had attended their organisation's wellness program, it was investigated if the four wellness program attributions predict the way in which such programs are evaluated in terms of satisfaction, recommendation to others, and needs met.

# Chapter 3: Method

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This chapter describes the design adopted by this research to achieve the aims and objectives stated in Chapter 1. Sections 3.1 and 3.2 discuss the methodology and the research design used; section 3.3 details the sample size and participant characteristics; section 3.4 lists all the measures used in the study.

## 3.1 SAMPLING PROCEDURE

The research was approved by the Human Research Ethics Committee of Queensland University of Technology (ethics approval number: 1900000521) and involved a sample of employees drawn from Australian organisations through the use of Qualtrics. To qualify for the study, participants had to be i) employed (either part-time or full-time) on a permanent or temporary basis and ii) have a wellness program available in their organisation. A wellness program was defined as any activity or service, offered by their employer in either the workplace itself or off-site, that aims to promote good health, and improve the physical and/or mental health and well-being of employees. Screening questions (see Appendix A) were built into the survey at the beginning and those who did not qualify were thanked for their time and were not directed to the survey. Qualifying participants were then presented with an overview of the research and an information sheet. This form stated that completion and submission of the online survey would be accepted as evidence of their consent to participate. The Qualtrics manager, who worked closely with the researchers, was responsible for inviting participants and distributing the survey using the Qualtrics software.

More than 2,000 initiated the survey and a total of 528 qualified based on the three screening criteria outlined above. The data was checked for quality and four respondents were disqualified due to discrepancies in their responses. All responses were collected over a 4-day period and respondents who completed the survey received an incentive (cash, airline miles, gift cards, redeemable points, charitable donations, sweepstakes entrance, and voucher) that was at least the minimum wage requirement within Australia. The exact reward was based on the survey length, their specific panellist profile, and target acquisition difficulty, amongst other factors.

## 3.2 SURVEY DESIGN

The survey comprised five sections 1) About you and your role, 2) Your organisation's health and wellness program, 3) Your job and workplace, 4) Your general well-being (see section 3.4 below for description of measures). No personal identifying information was required such as name or birth date, ensuring confidentiality.

### 3.2.1 Pre-testing

Pre-testing of the survey was done in two ways. First, through convenience sampling two participants were identified and agreed to test the survey and provide their impressions regarding the overall survey experience including wording, flow, and instructions. Useful feedback was gained and the survey was adjusted to optimise the overall user experience and improve clarity. The graphical user interface (GUI) of the survey was considered to be clear and user friendly both on computer screens and smart phones. Second, Qualtrics conducted a soft launch of the survey and corrected any technical issues that were found before commencing full a launch to the entire sample.

## 3.3 SAMPLE SIZE AND CHARACTERISTICS

As illustrated in Table 1, the final sample of 524 included 202 (38.55%) who identified as men and 318 (60.69%, .76% missing) who identified as women. The average age was 46.14 years ( $SD = 12.44$ , missing 12.2%), ranging from 19 to 75 years. 365 of participants were employed on a full-time basis (69.52%) and 160 on part-time basis (30.48%). 473 of participants were employed on a permanent basis (90.1%) and 52 on a temporary basis (9.90%). On average, participants had worked 10.26 years in their organisation ( $SD = 9.29$ ) with tenure ranging from 0 to 48 years. 247 (47.14%) of respondents had supervisor responsibilities, while 269 (51.34%, missing 1.5%) did not.

In regards to the industry respondents worked in, the largest categories were Education and Training industry (13.3%), and Health Care and Social Assistance (10.8%, 0.2% missing). Additionally, in terms of the state of residence, the largest categories were 30.53% in New South Wales, 25.00% in Victoria, 21.76% in Queensland, 9.73% Western Australia, 8.21% South Australia, 2.10% Tasmania, 1.91% Australian Capital Territory, and 0.57% Northern Territory (0.19% missing).

Table 1. Sample characteristics

Characteristics	Sample ( <i>n</i> = 524)
<b>Gender</b>	
Women	60.69%
Men	38.55%
<b>Age Average</b>	46.14 <sup>a</sup>
<b>Age Range</b>	19 – 75 <sup>a</sup>
<b>Tenure Average</b>	10.26 <sup>a</sup>
<b>Tenure Range</b>	0 – 48 <sup>a</sup>
<b>Supervision responsibility</b>	
Yes	47.14%
No	51.34%
<b>Employment type</b>	
Full-time	69.52%
Part-time	30.48%
Permanent	90.10%
Temporary	9.90%
<b>State of residence</b>	
New South Wales	30.53%
Victoria	25.00%
Queensland	21.76%
Western Australia	9.73%
South Australia	8.21%
Tasmania	2.10%
Australian Capital Territory	1.91%
Northern Territory	0.57%
<b>Industry</b>	
Education and Training	13.17%
Health Care and Social Assistance	10.88%
Other	8.78%
Retail Trade	8.40%
Financial and Insurance Services	8.21%
Professional, Scientific and Technical Services	8.21%
Public Administration and Safety	8.02%
Administrative and Support Services	6.11%
Manufacturing	5.73%
Transport, Postal and Warehousing	4.40%
Construction	3.82%
Wholesale Trade	2.48%
Information Media and Telecommunications	2.48%
Electricity, Gas, Water and Waste Services	2.29%
Mining	1.91%
Personal Services	1.91%
Agriculture, Forestry and Fishing	1.53%
Accommodation and Food Services	1.15%
Rental, Hiring and Real Estate Services	0.38%

Note: a = reported in actual number not percentage

### 3.4 MEASURES

This thesis primarily drew on pre-established and validated measures where possible. Some items were adapted slightly to better suit the context of the research. Cronbach's Alpha (Cronbach, 1951) for the multi-item scales was .70 or above (see Table 2) which showed an acceptable level of internal consistency or reliability given that scores above seven (>.7) are generally considered acceptable for research purposes (Hair, 2014; Robinson, Shaver, & Wrightsman, 1991).

#### 3.4.1 Control measures

*Dispositional cynicism* was measured using the previously validated 6-item mistrust subscale from the CAT-Personality Disorder Scales Static Form (Simms et al., 2011) and included items such as: "I suspect hidden motives in others". Items were rated from 1 (very untrue of me) to 5 (very true of me).

*Management cynicism* was measured using a 5-items scale created by Stanley et al. (2005) and included questions such as: "I often question the motives of management in my organisation". Items were rated from 1 (strongly disagree) to 7 (strongly agree).

#### 3.4.2 Past participation

*Past wellness program participation* was measured by asking: "Have you ever attended/participated in any aspect of your organisation's health and wellness program?", with answer options being 'yes', 'no', or 'unsure'. The responses were recoded such that yes was coded as 1 while no and unsure were combined and coded as 0.

#### 3.4.3 Job demands

*Time pressure* was measured with three items from Cousins et al. (2004) and included items such as: "I have unachievable deadlines". Response options ranged from 1 (never) to 7 (always).

*Role conflict* was measured using three items from Haynes, Wall, Bolden, Stride, and Rick (1999) and questions included: "I receive incompatible requests from two or more people". Items were rated from 1 (never) to 7 (always).

*Role ambiguity* was measured using three items from Cousins et al. (2004) including questions such as: "I am clear what my duties and responsibilities are". Items

were rated from 1 (never) to 7 (always) and reverse coded to capture level of ambiguity.

*Emotional demands* was measured using a 3-item scale from Schaufeli, Bakker, and Van Rhenen (2009) which included items such as: “Does your work put you in emotionally disturbing situations?”. Items were rated from 1 (never) to 7 (always).

#### **3.4.4 Wellness program attributions**

Wellness program attributions were measured based on the HR attribution scale developed by Nishii et al. (2008). However, the wording was adapted to suit the context with the text “In this section, we would like to know your opinion about why your organisation has the health and wellness program it has. Please tell us the extent to which you agree with each of the statements below”. Items were rated from 1 (not at all) to 5 (to a great extent) and items for each attribution are presented below.

*Commitment attribution* was captured with one item: “So that employees will feel valued and respected—to promote health and well-being”. *Control attribution* was also captured using a single item: “In order to keep costs down”.

*Compliance attribution* was measured using two items capturing adherence to union obligations and to health and safety regulations relevant to the Australian context. The items used were: “Because they are required to by the union contract”, “Because it is an OH&S requirement”.

*Image attribution* was included as an additional dimension, as suggested by Hewett et al. (2019). This attribution was designed to capture the extent to which employees believed wellness program initiatives were offered in order to manage the corporate brand externally and remain competitive. This attribution was captured with two items: “To keep up with what other organisations are doing”, “To create a positive image in the marketplace and earn the company a reputation for being a leader in the industry”.

#### **3.4.5 Employee outcomes**

*Psychological strain* was measured using 12 items from the General Health Questionnaire (Goldberg & Hillier, 1979) asking respondents to reflect on the last four weeks. An example item includes: “felt you couldn’t overcome your difficulties?”. Items were rated from 1 (never) to 7 (always) based on Banks et al. (1980) findings

showing better performance when using Likert rating over the original rating scale. This scale provides a context free assessment of strain. The scale consists of both negatively and positively worded items designed to detect minor psychiatric disorders including social dysfunction, loss of confidence, anxiety and depression in the population of a non-clinical nature.

*Job burnout.* The predictive ability of psychosocial measures in the work context has been found to be dependent on various mental well-being outcomes. One such study by Marchand and Durand (2011) showed that psychosocial risk factors predicted greater variance for job burnout. For this reason, it was necessary to consider a measure of mental wellbeing specific to the work context. Therefore, another employee outcome included was job burnout. Job burnout was measured using one item “I feel burned out from my work” and rated from (never or almost never) to 7 (always or almost always). West, Dyrbye, Sloan, and Shanafelt (2009) examined the performance of single items versus the full 22-item Maslach Burnout Inventory (MBI) scale and found that the single item used in this present study provided a good estimation of job burnout. Single items designed to capture job burnout have also been applied in the healthcare setting (Rohland, Kruse, & Rohrer, 2004), although with wording differing somewhat from the one used in this thesis.

*Turnover intentions* were measured using an adapted item from Takawira, Coetzee, and Schreuder (2014): “Do you intend to leave the organisation in the next 12 months?” and rated from 1 (strongly disagree) to 7 (strongly agree). Single item measures of turnover intentions have been used in previous studies and were found to successfully capture respondents’ subjective probability assessment (Vandenberg, Self, & Seo, 1994).

*Job dissatisfaction* was measured using a single item from Warr (1990): “I am satisfied with my job” and rated from 1 (strongly disagree) to 7 (strongly agree). This item was reverse coded in order to capture job dissatisfaction in the analysis output. Through a meta-analysis, Wanous, Reichers, and Hudy (1997) compared the use of single items versus scales to capture overall job satisfaction. It was found that single-item measures had reasonable reliability, when using correction for attenuation formula, and were more robust in the results they produced for the meta-analysis than scale measures. As such, single-item measures were found to be acceptable given situational constraints and the depending on the research question.

*Days impaired* was measured using an item from the perceived physical and mental health items from Moriarty, Zack, and Kobau (2003). In particular, to evaluate the number of days impaired, the item used read; “During the past 30 days, for about how many days did poor physical health or mental health keep you from doing your usual activities, such as employment, recreation, caring for self, caring for others?” This continuous variable was coded into a dichotomised variable because responses were skewed such that 277 of respondents reported having zero days affected, whereas 239 had between one to 30 days affected. Therefore, responses were recoded such that the odds of having no days affected was coded as 0, and the odds of having one or more days affected by poor health was coded as 1.

### **3.4.6 Wellness program satisfaction and usefulness**

Participants who indicated that they had availed themselves of their organisation’s wellness program were directed to a set of three distinct items designed to capture overall satisfaction. These items included: “How satisfied are you with your organisation’s health and wellness program”, rated from 1 (strongly dissatisfied) to 7 (strongly satisfied), “Would you recommend your organisation’s health and wellness program to colleagues?” rated from 1 (no, not at all) to 7 (yes, very much so), and “Overall, have your needs been met by your organisation’s health and wellness program?”, rated from 1 (no, not at all) to 7 (yes, very much so).



## Chapter 4: Results

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This chapter presents the findings from the data analyses in relation to the role of demographic variables (section 4.1), data analysis overview (section 4.2), direct effect of wellness program attributions on employee outcomes (section 4.3), interaction effects (section 4.4), and discoveries concerning wellness program features, participation, and evaluation (section 4.5).

Table 2 displays descriptive data (means and standard deviations) and inter-correlations among the focal variables for the entire sample. The majority of correlations were low to moderate (below  $>.7$ ), indicating that multicollinearity was not a serious threat to the analyses (Tabachnick & Fidell, 2013). In line with expectations, all job demand variables were positively correlated with each other. Similarly, when inspecting the employee outcome variables, all were positively correlated with each other.

Interestingly, when inspecting the attribution variables, these were all positively correlated with each other, with the exception of commitment attribution and compliance attribution which was not significant;  $r = .06, p = .175$ . This suggests that it is possible to hold competing views simultaneously. Also interesting were the means for the wellness attributions, with commitment attribution ( $M = 3.46$ ) and image attribution ( $M = 3.27$ ) being the highest, and compliance attribution ( $M = 2.97$ ) and control attribution ( $M = 2.95$ ) the lowest. One-sample t-tests confirmed significant differences between the commitment mean and control mean scores,  $t = -10.046, df = 519, p < .001$ , commitment mean and compliance mean,  $t = -10.130, df = 521, p < .001$ , and commitment mean and image mean,  $t = -4.335, df = 520, p < .001$ . Significant differences also were found between the control mean and image mean,  $t = 7.126, df = 520, p < .001$ , and between the compliance mean and image mean,  $t = 6.588, df = 520, p < .001$ .

Table 2. Correlations matrix

Focal variables	Mean (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Participation	0.57 (0.50)																
2 Dispositional cynicism	2.77 (0.73)	.05	(.82)														
3 Management cynicism	4.05 (1.32)	.03	.41***	(.86)													
4 Time pressure	3.38 (1.49)	.16**	.37***	.32***	(.91)												
5 Role conflict	3.10 (1.47)	.16**	.48***	.41***	.68***	(.91)											
6 Role ambiguity	2.25 (1.15)	-.06	.31***	.32***	.27***	.40***	(.91)										
7 Emotional demand	3.86 (1.61)	.11*	.35***	.29***	.56***	.52***	.20***	(.92)									
8 Commitment attribution	3.46 (1.01)	.06	-.20***	-.38***	-.11*	-.18***	-.38***	-.08									
9 Control attribution	2.95 (1.15)	.06	.16**	.10*	.14**	.16***	-.02	.19***	.20***								
10 Compliance attribution	2.96 (1.09)	-.08	.25***	.27***	.13**	.24***	.09	.18***	.06	.40***	(.70)						
11 Image attribution	3.25 (1.01)	.01	.11*	.19***	.11*	.14**	-.06	.15**	.24***	.48***	.55***	(.77)					
12 Psychological strain	3.05 (1.10)	.06	.58***	.41***	.50***	.58***	.52***	.47***	-.30***	.16**	.18***	.06	(.91)				
13 Job dissatisfaction	2.92 (1.55)	-.04	.35***	.41***	.32***	.38***	.53***	.20***	-.51***	-.06	.05	-.06	.55***				
14 Job burnout	3.53 (1.69)	.11*	.50***	.43***	.62***	.61***	.39***	.60***	-.24***	.13**	.23***	.12**	.69***	.44***			
15 Turnover intentions	3.04 (2.00)	.05	.32***	.35***	.37***	.39***	.36***	.28***	-.27***	.03	.17**	.05	.38***	.41***	.40***		
16 Days impaired <sup>a</sup>	0.46 (0.50)	.14**	.33***	.24***	.32***	.34***	.20***	.35***	-.11*	.08	.10*	.09	.43***	.24***	.39***	.26***	

Note. Cronbach's (1951) alpha reliability coefficients appear in the diagonals.  $n = 472$  due to listwise deletion. <sup>a</sup>Days impaired; 0 = zero days, 1 = 1-30 days  
 \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$ .

#### 4.1 ROLE OF DEMOGRAPHIC VARIABLES

To test the relationship between gender, age, employment status, and supervision responsibilities with employee outcomes, independent samples t-tests and chi-square tests, and correlations were performed. Gender was not found to be significant in relation to psychological strain,  $t(516) = -1.05, p = .294$ , job dissatisfaction,  $t(507) = .055, p = .956$ , job burnout,  $t(496) = -1.44, p = .151$ , turnover intentions,  $t(505) = -.60, p = .546$ , or days impaired,  $\chi^2 = 2.737, df = 1, p = .098$ .

Age showed a significant negative association with psychological strain,  $r = -.22, p < .001$ , job dissatisfaction,  $r = -.10, p < .05$ , job burnout,  $r = -.21, p < .001$ , and days impaired,  $t(449) = 4.41, p < .001$ . This revealed that older workers were less stressed and dissatisfied overall. However, as age increased, so did the odds of having one or more days impaired due to poor health. Age was not significantly associated with turnover intentions,  $r = -.08, p = .083$ .

Full-time versus part-time employees did not differ in regards to psychological strain,  $t(520) = .92, p = .358$ , job dissatisfaction,  $t(511) = .58, p = .566$ , job burnout,  $t(500) = 2.04, p = .042$ , turnover intentions,  $t(320.038) = .33, p = .743$ , or days impaired,  $\chi^2 = .005, df = 1, p = .943$ .

Similarly, permanent versus temporary employment status was non-significant on psychological strain,  $t(520) = .40, p = .692$ , job dissatisfaction,  $t(511) = -.52, p = .602$ , job burnout,  $t(60.313) = 1.06, p = .292$ , turnover intension,  $t(509) = -1.39, p = .169$ , and days impaired,  $\chi^2 = .241, df = 1, p = .623$ .

Supervision responsibilities was non-significant on psychological strain,  $t(512) = -.45, p = .650$ , job dissatisfaction,  $t(503) = 1.42, p = .156$ , job burnout,  $t(493) = -1.71, p = .088$ , and turnover intension,  $t(501) = -1.39, p = .164$ . However, supervision responsibilities did have a significant association with days impaired,  $\chi^2 = 3.916, df = 1, p = .048$ . Having supervision responsibilities was disproportionately associated with having one or more days impaired due to poor health, whereas not having supervision responsibilities was disproportionately associated with having no days impaired.

## 4.2 DATA ANALYSIS OVERVIEW

Inspection of skewness and kurtosis was conducted on all focal variables and revealed no concerns. However, in the case of days impaired, as mentioned previously, a dichotomised variable was created because responses were skewed such that 277 of respondents reported having zero days affected, whereas 239 had between one to 30 days affected. Therefore, responses were recoded such that the odds of having no days affected was coded as 0, and the odds of having one or more days affected by poor health was coded as 1.

Listwise deletion was used for missing data. The mechanics of the survey allowed participants to not answer questions if they chose not to. Gender, tenure, occupation, employment status, and supervision responsibilities were not controlled for due to a lack of significant associations with the employee outcomes. Due to substantial missing data on age ( $n = 64$ ), age was not controlled for in order to preserve degrees of freedom, despite its significant correlations with psychological strain, job dissatisfaction, job burnout, and days impaired.

In regards to the direct effects, Table 3 and Table 4 show the four multiple hierarchical regressions and the single binary logistic regression (for the dichotomous operationalisation of days impaired) that were conducted to first evaluate the extent to which the four wellness program attributions predicted employee outcomes, over and above the influence of dispositional and management cynicism (Step 1), past wellness program participation (Step 2), and job demands (Step 3).

To test Hypotheses 1-4, an additional series of multiple hierarchical regression analyses and binary logistic regressions were conducted. Each proposed job demand x wellness program interaction was tested in isolation in order to capture its effect on the employee outcomes without interference from the other attributions. For these analyses, means were centered for the independent and moderator variables (Aiken, West, & Reno, 1991; Dawson, 2014). Again, the cynicism variables were entered in Step 1, past wellness program participation in Step 2, the relevant job demand and wellness attribution in Step 3, and the subsequent two-way interaction term was entered in Step 4. Significant interactions were graphed and simple slopes analyses examined (Jaccard, Wan, & Turrisi, 1990). For the significant interaction term results on days impaired, identified from the logistic regression analyses, the unstandardised beta coefficients scores are reported below.

Last, to test Hypotheses 5-8, three multiple hierarchical regression analyses were conducted (see Table 7).

### **4.3 DIRECT EFFECTS OF WELLNESS ATTRIBUTIONS**

#### **4.3.1 Cynicism**

The two cynicism variables were entered in Step 1 and accounted for a significant increment in variance on psychological strain,  $R^2 = .369$ ,  $F(2, 496) = 145.23$ ,  $p < .001$ , job dissatisfaction,  $R^2 = .197$ ,  $F(2, 487) = 59.89$ ,  $p < .001$ , job burnout,  $R^2 = .310$ ,  $F(2, 476) = 106.75$ ,  $p < .001$ , turnover intentions,  $R^2 = .143$ ,  $F(2, 486) = 41.84$ ,  $p < .001$ . Dispositional cynicism had a significant positive effect on psychological strain,  $\beta = .48$ ,  $p < .001$ , job dissatisfaction,  $\beta = .19$ ,  $p < .001$ , job burnout,  $\beta = .40$ ,  $p < .001$ , turnover intentions,  $\beta = .22$ ,  $p < .001$ . According to the Wald criterion higher levels of dispositional cynicism was associated with days impaired,  $z = 32.02$ ,  $p < .001$ . Management cynicism had a significant positive effect on psychological strain,  $\beta = .23$ ,  $p < .001$ , job dissatisfaction,  $\beta = .33$ ,  $p < .001$ , job burnout,  $\beta = .26$ ,  $p < .001$ , turnover intentions,  $\beta = .24$ ,  $p < .001$ . According to the Wald criterion higher levels of management cynicism was associated with days impaired,  $z = 5.04$ ,  $p < .05$ , those reporting higher levels of management cynicism were significantly more likely to report having one or more days affected by poor mental or psychical health.

#### **4.3.2 Past wellness Program Participation**

Past wellness program participation was entered in Step 2 and did not account for a significant increase in variance for psychological strain,  $R^2 Ch. = .000$ ,  $F(3, 495) = 96.72$ ,  $p = .677$ , job dissatisfaction,  $R^2 Ch. = .003$ ,  $F(3, 486) = 40.53$ ,  $p = .199$ , and turnover intentions,  $R^2 Ch. = .000$ ,  $F(3, 485) = 27.91$ ,  $p = .662$ . However, the increase in variance was approaching significance on job burnout,  $R^2 Ch. = .005$ ,  $F(3, 475) = 72.83$ ,  $p = .053$ . As such, participation was approaching significance on job burnout,  $\beta = .07$ ,  $p < .10$ . According to the Wald criterion, those who had participated in their organisation's wellness program were significantly more likely to have one or more days affected by poor health,  $z = 9.605$ ,  $p < .01$ . The associations between past wellness program participation and job burnout and days impaired were positive which suggests that those employees who participated in a wellness program reported a higher degree of job burnout and higher odds of having one or more days impaired.

### 4.3.3 Job Demands

Demands were entered in Step 3 and accounted for a significant increment in variance on psychological strain,  $R^2 Ch. = .195$ ,  $F(7, 491) = 48.49$ ,  $p < .001$ , job dissatisfaction,  $R^2 Ch. = .161$ ,  $F(7, 482) = 38.88$ ,  $p < .001$ , job burnout,  $R^2 Ch. = .267$ ,  $F(7, 471) = 93.57$ ,  $p < .001$ , and turnover intentions,  $R^2 Ch. = .097$ ,  $F(7, 481) = 22.25$ ,  $p < .001$ .

Time pressure had a significant positive effect on psychological strain,  $\beta = .11$ ,  $p < .05$ , job burnout,  $\beta = .29$ ,  $p < .001$ , and turnover intentions,  $\beta = .19$ ,  $p < .01$ . No significant effect was found for time pressure on job dissatisfaction and days impaired.

Role conflict had a significant positive effect on psychological strain,  $\beta = .14$ ,  $p < .01$ . No significant effect was found for role conflict on job dissatisfaction, job burnout, turnover intentions and days impaired.

Role ambiguity had a significant positive effect on psychological strain,  $\beta = .30$ ,  $p < .001$ , job dissatisfaction,  $\beta = .40$ ,  $p < .001$ , job burnout,  $\beta = .13$ ,  $p < .001$ , and turnover intentions,  $\beta = .21$ ,  $p < .001$ . No significant effect was found for role ambiguity on days impaired.

Emotional demands was found to have a significant positive effect on psychological strain,  $\beta = .15$ ,  $p < .001$ , job burnout,  $\beta = .29$ ,  $p < .001$ . There was no significant effect for emotional demands on job dissatisfaction and turnover intentions. According to the Wald criterion emotional demands was significant associated with days impaired,  $z = 9.611$ ,  $p < .01$ , such that those who reported higher levels of emotional demand were more likely to have one or more days impaired.

### 4.3.4 Wellness Attributions

Attributions were entered in Step 4 and although they did not account for a significant increment in variance on psychological strain,  $R^2 Ch. = .008$ ,  $F(11, 487) = 59.36$ ,  $p = .067$ , job burnout,  $R^2 Ch. = .003$ ,  $F(11, 467) = 59.76$ ,  $p = .503$ , turnover intentions,  $R^2 Ch. = .010$ ,  $F(11, 477) = 14.81$ ,  $p = .174$ , and a highly significant increment for job dissatisfaction,  $R^2 Ch. = .086$ ,  $F(11, 478) = 35.17$ ,  $p < .001$ . Commitment attribution had a significant negative effect on psychological strain,  $\beta = -.08$ ,  $p < .05$ , job dissatisfaction,  $\beta = -.32$ ,  $p < .001$ , and was nearing significance on turnover intentions,  $\beta = -.09$ ,  $p = .050$ . Control attribution had a positive effect on psychological strain,  $\beta = .073$ ,  $p < .05$ . No significant effects were found for

compliance attribution or image attributions on psychological strain, job dissatisfaction, job burnout, turnover intentions, and days impaired.

Table 3. Summary of hierarchical regression analyses for employee outcomes

	Psychological Strain <i>n</i> = 499 <i>β</i>	Job Dissatisfaction <i>n</i> = 490 <i>β</i>	Job Burnout <i>n</i> = 479 <i>β</i>	Turnover Intentions <i>n</i> = 489 <i>β</i>
<u>Step 1</u>				
<i>R</i> <sup>2</sup>	.369***	.197***	.310***	.147***
Dispositional cynicism	.479***	.192***	.399***	.217***
Management cynicism	.233***	.332***	.259***	.242***
<u>Step 2</u>				
<i>R</i> <sup>2</sup> change	.000	.003	.005†	.000
Past wellness program participation	.015	-.052	.074†	.018
<u>Step 3</u>				
<i>R</i> <sup>2</sup> change	.195***	.161***	.267***	.097***
Time pressure	.110*	.078	.289***	.187**
Role conflict	.141**	.067	.070	.040
Role ambiguity	.304***	.396***	.134***	.207***
Emotional demands	.151***	-.057	.289***	.044
<u>Step 4</u>				
<i>R</i> <sup>2</sup> change	.008†	.086***	.003	.010
Commitment attribution	-.078*	-.323***	-.045	-.094†
Control attribution	.073*	-.040	-.024	-.041
Compliance attribution	-.021	-.035	.046	.064
Image attribution	-.027	.027	.007	-.007
Total <i>R</i> <sup>2</sup>	.573***	.447***	.585***	.257***

† *p* < .10; \* *p* < .05; \*\* *p* < .01; \*\*\* *p* < .001

Note: standardised beta coefficients from step at which they were entered



Table 4. Summary of binary logistic regression analyses for predicting days impaired

<i>n</i> = 524	B	S.E.	Wald	Df	Sig	95% CI for odds ratio	
						Lower	Upper
<u>Step 1</u>							
Dispositional cynicism	.850	.150	32.019	1	.000	1.743	3.141
Management cynicism	.179	.080	5.044	1	.025	1.023	1.398
<u>Step 2</u>							
Past wellness program participation	.611	.197	9.605	1	.002	1.252	2.710
<u>Step 3</u>							
Time pressure	.081	.094	.741	1	.389	.902	1.304
Role conflict	.096	.102	.870	1	.351	.900	1.344
Role ambiguity	.073	.097	.577	1	.448	.890	1.300
Emotional demands	.239	.077	9.611	1	.002	1.092	1.476
<u>Step 4</u>							
Commitment attribution	-.005	.119	.002	1	.966	.789	1.255
Control attribution	-.109	.103	1.105	1	.293	.733	1.098
Compliance attribution	-.084	.118	.507	1	.476	.730	1.158
Image attribution	.159	.129	1.537	1	.215	.912	1.509

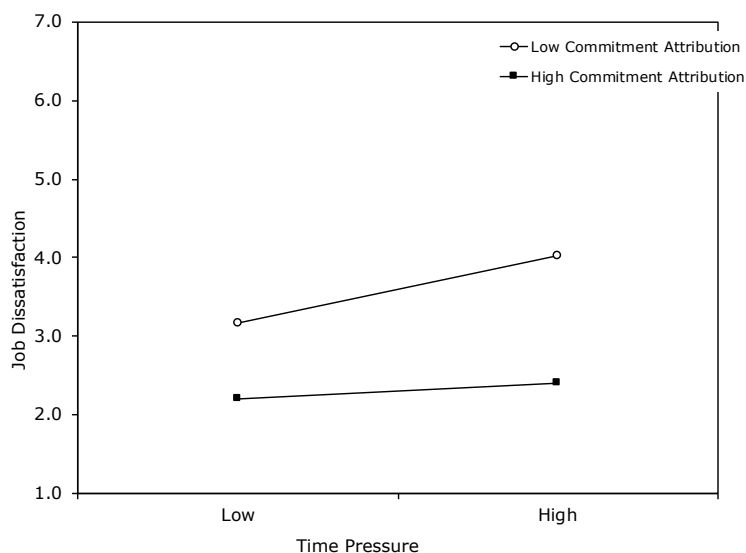
Note: unstandardised beta coefficients from step at which they were entered

## 4.4 INTERACTION FINDINGS

### 4.4.1 Commitment Attribution

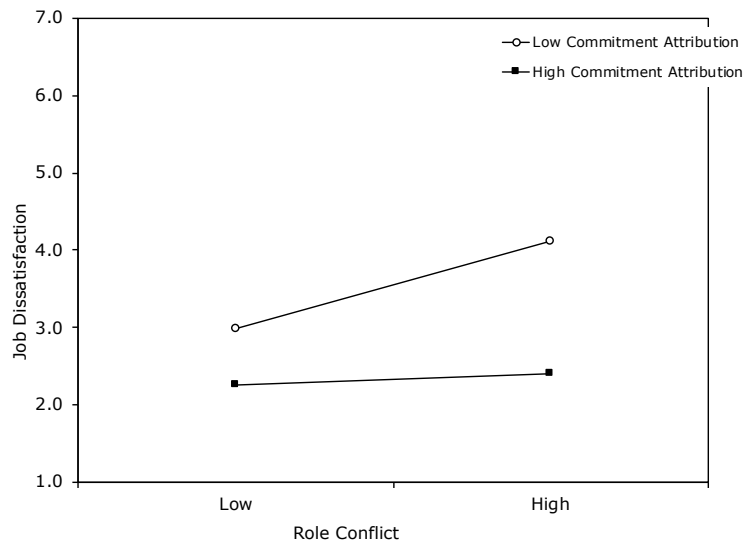
There were seven significant two-way interactions involving the commitment attribution. The time pressure x commitment attribution interaction was significant for job dissatisfaction,  $\beta = -.12$ ,  $p < .01$ ,  $R^2 Ch. = .013$ ,  $F(6, 496) = 50.01$  (see Figure 4). As predicted, the simple slopes showed that the positive relationship between time pressure and job dissatisfaction was non-significant for employees with high commitment attribution,  $b = .06$ ,  $t(490) = 1.11$ ,  $p = .270$ , and significant for those with low commitment attribution,  $b = .28$ ,  $t(490) = 5.05$ ,  $p < .001$ .

Figure 4. Interaction between time pressure and commitment attribution on job dissatisfaction



The role conflict x commitment attribution interaction also explained variance in job dissatisfaction,  $\beta = -.16$ ,  $p < .001$ ,  $R^2 Ch. = .026$ ,  $F(6, 490) = 54.01$  (see Figure 5). Again, as predicted, simple slopes results revealed that the positive relationship between high role conflict and job dissatisfaction was non-significant for employees with high commitment attribution,  $b = .05$ ,  $t(488) = .89$ ,  $p = .375$ , and significant for those with low commitment attribution,  $b = .39$ ,  $t(488) = 6.78$ ,  $p < .001$ .

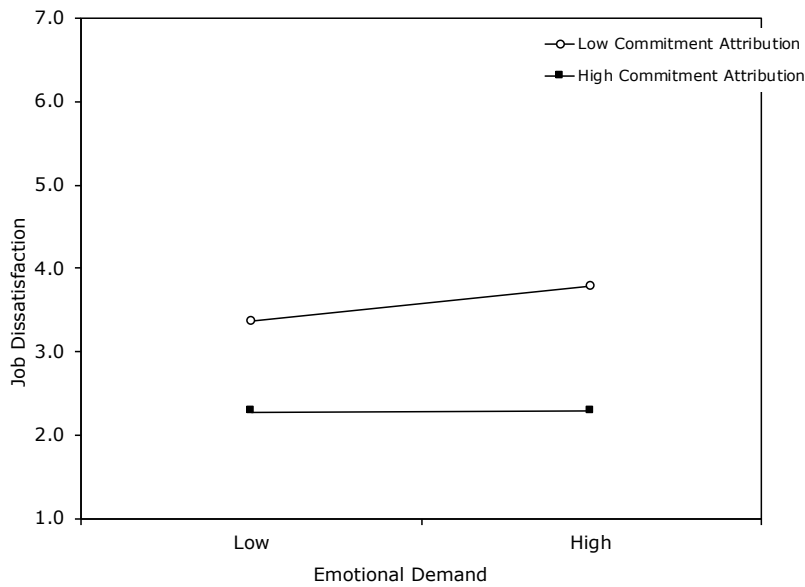
Figure 5. Interaction between role conflict and commitment attribution on job dissatisfaction



Similarly, the emotional demands x commitment attribution interaction was significant for job dissatisfaction,  $\beta = -.07$ ,  $p < .05$ ,  $R^2 Ch. = .005$ ,  $F(6, 493) = 44.35$  (see Figure 6). Simple slopes revealed that the positive relationship between emotional demands and job dissatisfaction was non-significant for employees with high commitment attribution,  $b = .00$ ,  $t(491) = 0.01$ ,  $p = .994$ , and significant for those with low commitment attribution,  $b = .13$ ,  $t(491) = 2.54$ ,  $p < .05$ .

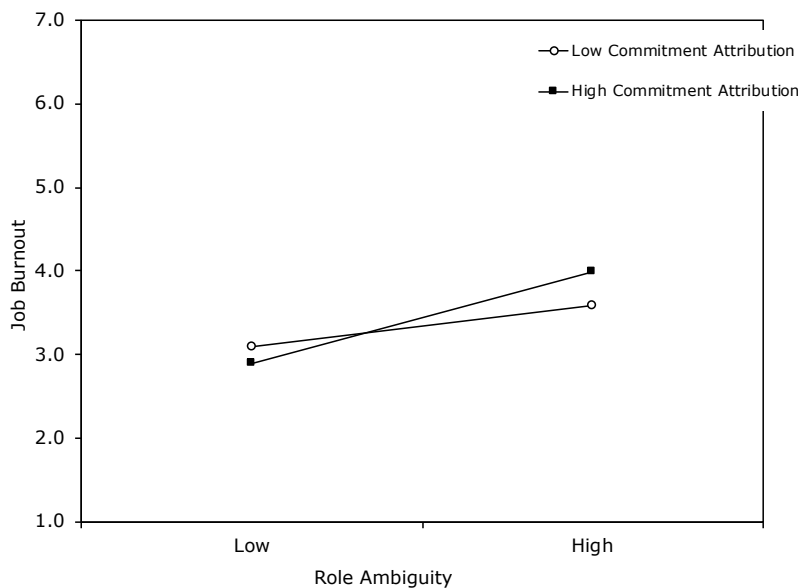
Overall, these three significant interactions between job demands and commitment attribution all showed a consistent pattern in relation to the employee outcome of job dissatisfaction. In line with expectations outlined in Hypothesis 1, findings revealed that high commitment attribution weakened the negative influence of time pressure, role conflict, and emotional demand on job dissatisfaction.

Figure 6. Interaction between emotional demands and commitment attribution on job dissatisfaction



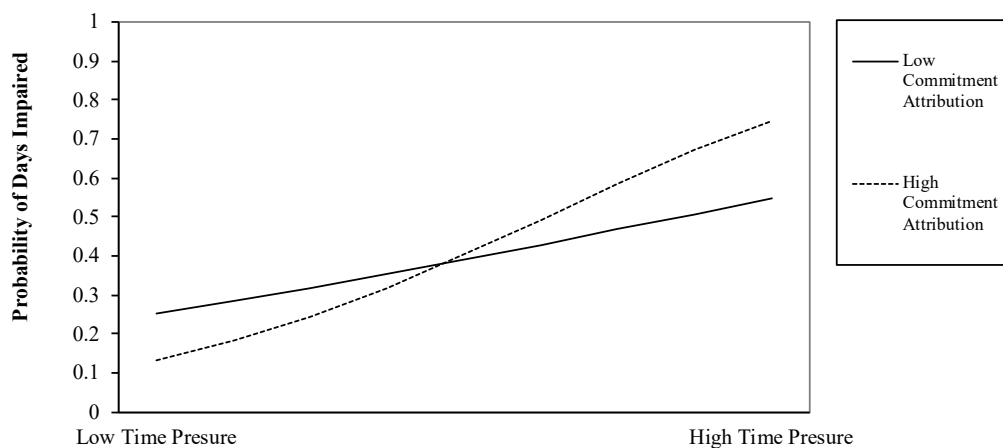
The role ambiguity x commitment attribution interaction was significant for job burnout,  $\beta = .091$ ,  $p < .05$ ,  $R^2 Ch. = .008$ ,  $F(6, 480) = 42.83$  (see Figure 7). Contrary to expectations, however, simple slopes showed that the positive relationship between role ambiguity and job burnout was more marked for employees with high commitment attribution,  $b = .47$ ,  $t(478) = 4.97$ ,  $p < .001$ , compared to those with low commitment attribution,  $b = .21$ ,  $t(478) = 2.88$ ,  $p = .004$ .

Figure 7. Interaction between role ambiguity and commitment attribution on job burnout



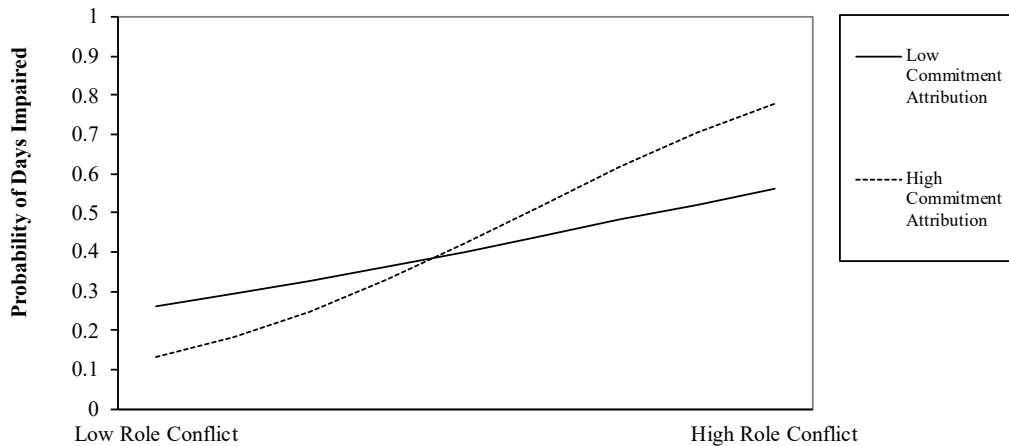
The results from the logistic regression indicated that the time pressure x commitment attribution interaction was significant for days impaired,  $b = .140$ ,  $SE = .064$ ,  $p < .05$  (see Figure 8). To probe the interaction, simple effects coefficients were computed for two values of commitment attribution, 1 SD below the mean and 1 SD above the mean. The results were counter to expectations indicating that time pressure had a stronger negative relation to days impaired for high levels of commitment attribution,  $b = .499$ ,  $SE = .131$ ,  $OR = 1.646$ ,  $p < .001$ . At high time pressure, low levels of commitment attribution were associated with slightly higher, but nonsignificant, increase in of odds of days impaired,  $b = .078$ ,  $SE = .112$ ,  $OR = 1.082$ , ns. Figure 8 graphs the interaction, showing the change in the expected probability of days impaired by time pressure for commitment attribution.

Figure 8. Interaction between time pressure and commitment attribution on days impaired



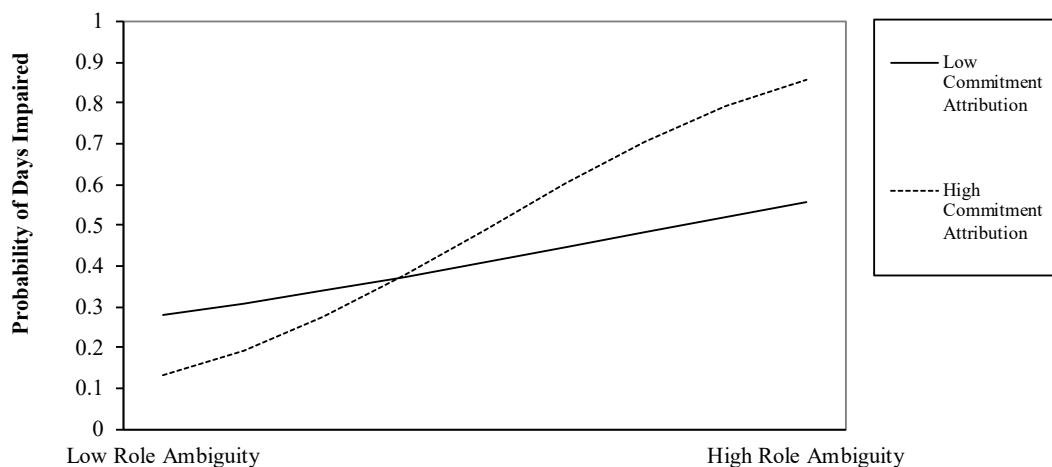
Similarly, the role conflict x commitment attribution interaction was significant for days impaired counter to expectations,  $b = .159$ ,  $SE = .069$ ,  $p < .05$  (see Figure 9). Again, simple slopes showed that at high levels commitment attribution, there was in fact a significant positive relationship between role conflict and days impaired,  $b = .527$ ,  $SE = .139$ ,  $OR = 1.695$ ,  $p < .001$ , whereas low commitment attribution did not affect the relationship between time pressure and days impaired,  $b = .052$ ,  $SE = .123$ ,  $OR = 1.053$ , ns.

Figure 9. Interaction between role conflict and commitment attribution on days impaired



Last, the role ambiguity x commitment attribution interaction was significant for days impaired,  $b = .263$ ,  $SE = .086$ ,  $p < .01$  (see Figure 10), and also showed a similar pattern of results. Simple slopes analysis revealed that the positive association between role ambiguity and days impaired was more evident at high commitment attribution,  $b = .631$ ,  $SE = .184$ ,  $OR = 1.880$ ,  $p < .001$ , whereas low commitment attribution did not affect the relationship between time pressure and days impaired,  $b = -.157$ ,  $SE = .137$ ,  $OR = .855$ , ns.

Figure 10. Interaction between role ambiguity and commitment attribution on days impaired



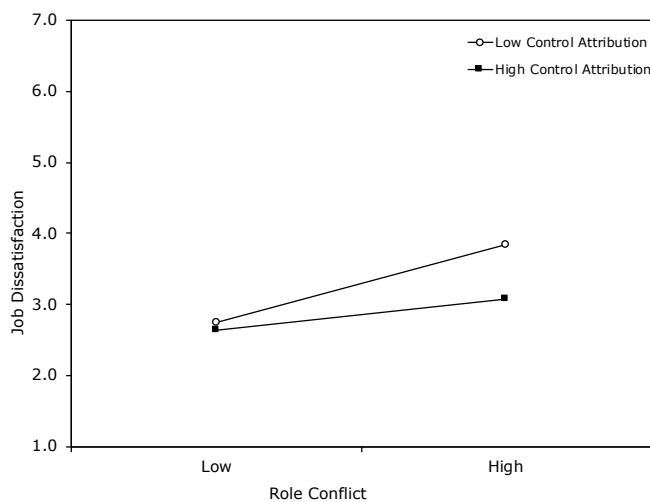
Overall, these four significant interactions revealed an unexpected pattern of results for job burnout and the odds of employees perceiving that their usual activities had been affected by poor health. Nevertheless, in the case of days impaired, it is interesting to note that, at low job demands, high commitment attribution did show a

more desirable result (i.e., higher odds of no days being affected by poor health) than low commitment attribution, suggesting that the most optimal combination is low demands and high commitment attribution.

#### 4.4.2 Control Attribution

Three significant interactions were found involving the control attribution. The role conflict x control attribution interaction was significant for job dissatisfaction,  $\beta = -.10$ ,  $p < .05$ ,  $R^2 Ch. = .013$ ,  $F(6, 489) = 28.48$  (see Figure 11). Counter to expectations outlined in Hypothesis 2, simple slopes revealed that the positive relationship between role conflict and job dissatisfaction was more marked for employees with low control attribution,  $b = .38$ ,  $t(487) = 5.76$ ,  $p < .001$ , compared to those with high control attribution,  $b = .15$ ,  $t(487) = 2.60$ ,  $p = .010$ .

Figure 11. Interaction between role conflict and control attribution on job dissatisfaction



The interactions between the various job demands and control attribution for days impaired was consistent and in line with expectations. The results showed that the deleterious effects of role conflict and role ambiguity were lower for employees with low control attribution and higher for those with high control attribution. Specifically, the role conflict x control attribution interaction was significant on days impaired,  $b = .153$ ,  $SE = .059$ ,  $p < .01$  (see Figure 12). Simple slopes analysis revealed that the positive association between role conflict and days impaired was evident at high control attribution,  $b = .425$ ,  $SE = .102$ ,  $OR = 1.529$ ,  $p < .001$ , whereas low control attribution did not significantly affect the relationship between role conflict and days impaired,  $b = .119$ ,  $SE = .098$ ,  $OR = 1.127$ , ns.

A similar results was found for the role ambiguity x control attribution interaction for days impaired,  $b = .167$ ,  $SE = .069$ ,  $p < .05$  (see Figure 13). Simple slopes analysis revealed that the positive association between role ambiguity and days impaired was evident at high control attribution,  $b = .328$ ,  $SE = .125$ ,  $OR = 1.388$ ,  $p < .01$ . However, at low control attribution, the relationship between role ambiguity and days impaired was not significant,  $b = -.007$ ,  $SE = .101$ ,  $OR = .993$ , ns.

Figure 12. Interaction between role conflict and control attribution on days impaired

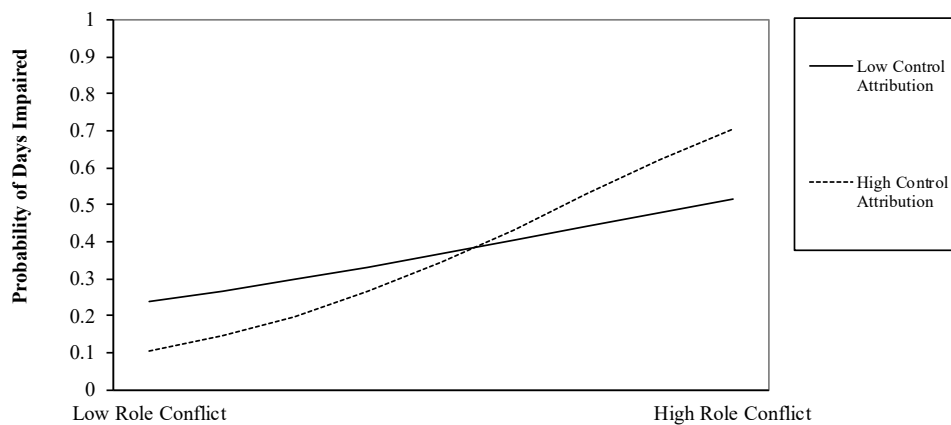
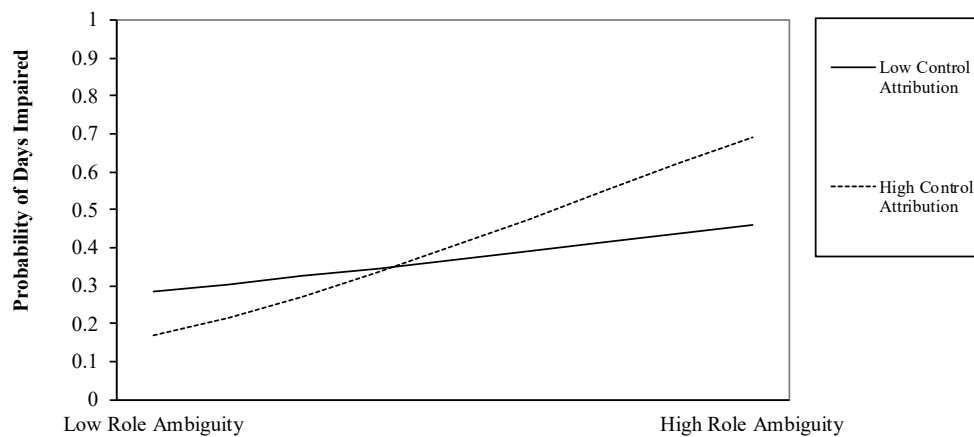


Figure 13. Interaction between role ambiguity and control attribution and days impaired



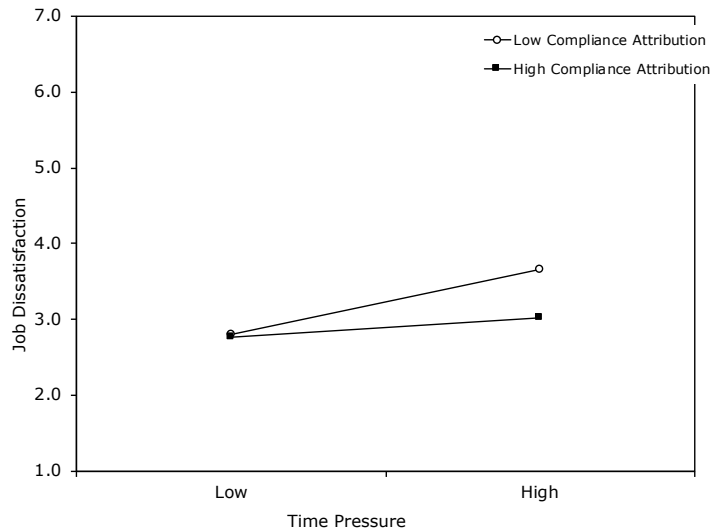
#### 4.4.3 Compliance Attribution

Only one significant interaction was found for the compliance attribution. The time pressure x compliance attribution interaction was significant for job dissatisfaction,  $\beta = -.10$ ,  $p < .01$ ,  $R^2 Ch. = .011$ ,  $F(6, 493) = 25.73$  (see Figure 14). In line with expectations outlined in Hypothesis 3, the positive relationship between time pressure and job dissatisfaction was not significant for those with a high compliance



attribution,  $b = .09$ ,  $t(491) = 1.55$ ,  $p = .121$ , and significant for those with a low compliance attribution,  $b = .28$ ,  $t(491) = 4.55$ ,  $p < .001$ .

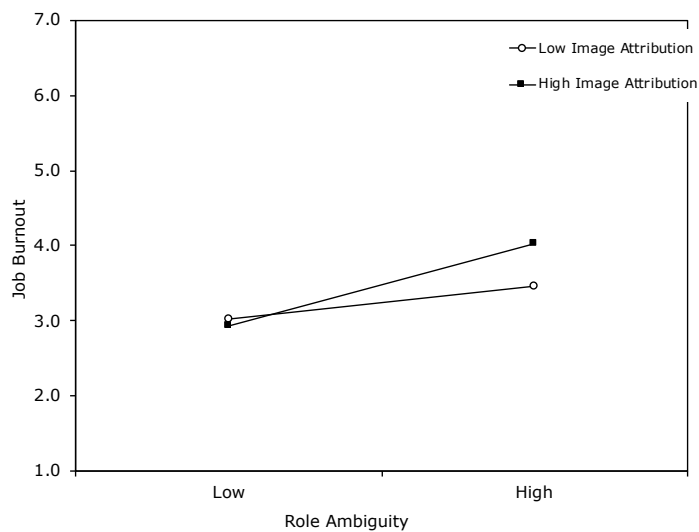
Figure 14. Interaction between time pressure and compliance attribution on job dissatisfaction



#### 4.4.4 Image Attribution

The role ambiguity x image attribution interaction was significant for job burnout,  $\beta = .14$ ,  $p < .01$ ,  $R^2 Ch. = .009$ ,  $F(6, 480) = 44.87$  (see Figure 15). According to the simple slopes, the relationship between role ambiguity and job burnout was more marked for employees with a high image attribution,  $b = .046$ ,  $t(478) = 5.51$ ,  $p < .001$ , and less marked for employees with a low image attribution,  $b = .19$ ,  $t(478) = 2.62$ ,  $p = .009$ . This pattern supports Hypothesis 4.

Figure 15. Interaction between role ambiguity and image attribution on job burnout



## 4.5 WELLNESS PROGRAM FINDINGS: FEATURES, PARTICIPATION, EVALUATION

### 4.5.1 Wellness Program Features

Respondents indicated the types of initiatives offered in their organisation's wellness program from a list of nine, with the 9<sup>th</sup> content area being 'other'. As shown in Table 5, the majority of the sample indicated mental health features as being part of their organisation's wellness program, whereas alcohol management related content was the least frequent feature. Moreover, 29.92% indicated their wellness programs comprised of a single feature and just 2.03% of respondents reported that their organisation's wellness program consisted of eight out of nine features, whereas none had access to all nine features. However, disregarding the feature 'other', only five respondents (0.95%) indicated that they had access to all the remaining eight features.

Table 5. Wellness program features

Wellness program features	Total sample ( <i>n</i> = 524)
<b>Program features</b>	
Mental health	74.2%
Physical health	57.2%
Health assessments	36.6%
Financial wellbeing	23.1%
Smoking cessation	22.2%
Nutrition	18.2%
Sleep and fatigue	17.2%
Alcohol management	14.8%
Other	1.2%
<b>Variety of features</b>	
Single feature	29.92%
8 out 8 features*	0.95%
8 out 9 features	2.03%

\* Not including the feature 'other'

### 4.5.2 Past Wellness Program Participation

A total of 297 employees (56.25%) had attended their organisation's wellness program, while 225 (42.61%) had not (1.14% missing). Table 6 presents details about the sub-sample that participated and the one that did not. Moreover, to investigate the influence of gender, age, tenure, employment status, and supervision responsibilities on the extent of participation rate, independent samples t-tests and chi-square tests were performed.

Of those who participated, 112 (37.71%) were men and 181 (60.94%) were women, while for those who had never attended any of their organisation's wellness program activities, 87 (38.67%) were men and 135 women (60%). As such, there were no significant differences between men and women on past participation,  $\chi^2 = .049$ ,  $df = 1$ ,  $p = 0.82$ . The tests revealed age was not significant on past participation,  $t(430) = -.644$ ,  $p = .520$ . However, average tenure for those who attended was 12.65 years compared to 8.59 years for those who did not attend. The independent samples t-test revealed significant differences for tenure on past participation,  $t(479) = -3.81$ ,  $p < .001$ .

Of those who participated, 222 (74.75%) were full-time employees and 75 (25.25%) were employed on a part-time basis. Of those who had never participated, 142 (63.11%) were full-time and 83 (36.89%) were part-time employed. The chi-square test revealed significant differences between full-time and part-time employees on past participation,  $\chi^2 = 8.213$ ,  $df = 1$ ,  $p = .004$ . Thus, full-time employees were more likely to attend than part-time employees. Contrarily, part-time employed respondents were more likely to not participate than full-time employees.

Moreover, 273 (91.92%) of those that attended were permanent employees while 24 (8.08%) were temporarily employed. 196 (87.11%) of those who had never participated were permanent and 29 (12.89%) were temporary staff. Consequently, permanent and temporary employment status was non-significant on past participation,  $\chi^2 = 3.244$ ,  $df = 1$ ,  $p = .72$ .

In relation to supervision responsibilities, of those who had attended, 171 (57.58%) had such responsibilities and 120 (40.4%) did not. On the other hand, of the respondents who had never attended, 77 (34.22%) had supervision responsibilities and 146 (64.89%) did not. There were significant differences between those with supervision responsibilities and those without on past participation,  $\chi^2 = 29.694$ ,  $df = 1$ ,  $p < .001$ . Thus, those with supervisor responsibilities were more likely than those without such responsibilities to have participated in their organisation's wellness program in the past.

Table 6. Wellness program participants

Wellness program participants	Participants ( <i>n</i> = 297)	Non-participants ( <i>n</i> = 225)
<b>Gender</b>		
Women	60.94% ( <i>n</i> = 181)	60.00% ( <i>n</i> = 135)
Men	37.71% ( <i>n</i> = 112)	38.67% ( <i>n</i> = 87)
<b>Age average</b>	45.86 <sup>a</sup>	45.09 <sup>a</sup>
<b>Tenure average</b>	12.65 <sup>a</sup>	8.59 <sup>a</sup>
<b>Employment type</b>		
Full-time	74.75% ( <i>n</i> = 222)	63.11% ( <i>n</i> = 142)
Part-time	25.25% ( <i>n</i> = 75)	36.89% ( <i>n</i> = 87)
Permanent	91.92% ( <i>n</i> = 273)	87.11% ( <i>n</i> = 196)
Temporary	8.08% ( <i>n</i> = 24)	12.89% ( <i>n</i> = 29)
<b>Supervisor responsibilities</b>		
Yes	57.58% ( <i>n</i> = 171)	34.22% ( <i>n</i> = 77)
No	40.40% ( <i>n</i> = 120)	64.89% ( <i>n</i> = 146)

Note. a = reported in actual number not percentage

In sum, looking across the profiles of those who participated and those who did not, there were no marked differences in terms of gender and age. However, there were some differences in terms of tenure, showing those who participated tended to have slightly higher tenure. A similar result was displayed for full-time employees and those with supervisor responsibilities, which all made up higher percentages of those who participated.

Additional to the above checks, the influences of cynicism (dispositional and management), job demands, and wellness program attributions, and employee outcomes were examined. In order to compare the subset of employees who participated in their organisation's wellness program to the sample that did not participate, independent t-tests and chi-square tests were performed. These results showed that neither dispositional cynicism,  $t(519) = -1.12, p = .266$ , nor management cynicism,  $t(518) = -0.66, p = .507$ , were significant on past participation.

In terms of job demands, three of the four demands showed significant differences on past participation. The independent samples t-tests uncovered significant differences between the means for time pressure,  $t(516) = -2.57, p = .010$ , role conflict,  $t(497) = -2.88, p = .004$ , and emotional demands,  $t(517) = -2.24, p = .025$ . Time pressure was higher in the sample that did participate ( $M = 3.52$ ) compared to the sample that did not participate ( $M = 3.17$ ). Similarly, role conflict was higher in the sample that participated ( $M = 3.25$ ) than for the sample that did not ( $M = 2.88$ ). Emotional demand also was higher in the sample of employee that participated ( $M =$

3.98) compared to the sample of employee who had not participated ( $M = 3.67$ ). No significant differences in means was found for role ambiguity,  $t(448) = .95, p = .344$ , between the two samples.

Regarding wellness attributions, the t-test results showed that none of the attributions influenced past participation: commitment,  $t(517) = -1.31, p = .191$ , control  $t(516) = -1.10, p = .272$ , compliance,  $t(518) = 1.53, p = .128$ , image,  $t(517) = -.56, p = .579$ . Moreover, participation was not significantly associated with the employee outcomes: psychological strain,  $t(518) = -1.212, p = .226$ , job dissatisfaction,  $t(509) = .595, p = .552$ , turnover intentions,  $t(507) = -.696, p = .487$ . However, participation was found to be moderately associated with job burnout,  $t(498) = -1.900, p = .058$ . The chi-square test also showed a significant association between past participation and days impaired,  $\chi^2 = 11.399, df = 1, p = .001$ . Thus, those who participated had higher odds of having one or more days impaired due to poor health. Contrarily, those who did not participate had higher odds of having no days impaired due to poor health.

#### 4.5.3 Wellness Program Evaluation

To examine the extent to which cynicism, job demands and wellness attributions influenced the three program evaluation variables (program satisfaction, recommend to other, and needs met), regressions were performed on the subset of respondents who had participated in their organisation's wellness program ( $n = 297$ ). As shown in Table 7, the two cynicism variables were entered in Step 1 and accounted for a significant increment in variance on program satisfaction,  $R^2 = .137, F(2, 271) = 21.47, p < .001$ , recommend to others,  $R^2 = .091, F(2, 277) = 13.93, p < .001$ , and needs met,  $R^2 = .104, F(2, 282) = 16.40, p < .001$ . Results showed that management cynicism,  $\beta = -.337, p < .001$ , had a significant negative association with program satisfaction, while dispositional cynicism was not significant,  $\beta = -.066, p = .287$ . A similar result was found for recommend to others (management cynicism,  $\beta = -.301, p < .001$ , dispositional cynicism,  $\beta = -.001, p = .974$ ) and needs met (management cynicism,  $\beta = -.337, p < .001$ , dispositional cynicism,  $\beta = .040, p = .515$ ).

Job demands were entered in Step 2 and accounted for a significant increment in variance on program satisfaction,  $R^2 = .081$ ,  $F(6, 267) = 12.40$ ,  $p < .001$ , recommend to others,  $R^2 = .087$ ,  $F(6, 273) = 9.87$ ,  $p < .001$ , and needs met,  $R^2 = .072$ ,  $F(6, 278) = 9.93$ ,  $p < .001$ . Role ambiguity had a significant negative association with program satisfaction  $\beta = -.299$ ,  $p < .001$ , while the remaining demands were not significant. Further, role ambiguity was significantly associated with recommend to others,  $\beta = -.325$ ,  $p < .001$ , and needs met,  $\beta = -.284$ ,  $p < .001$ .

Last, attributions were entered in Step 3 and accounted for a significant increment in variance on program satisfaction,  $R^2 = .078$ ,  $F(10, 263) = 11.10$ ,  $p < .001$ , recommend to others,  $R^2 = .120$ ,  $F(10, 269) = 11.45$ ,  $p < .001$ , and needs met,  $R^2 = .180$ ,  $F(10, 274) = 15.21$ ,  $p < .001$ . Commitment attribution was found to have a positive association with program satisfaction,  $\beta = .289$ ,  $p < .001$ , while control,  $\beta = .069$ ,  $p = .260$ , compliance,  $\beta = .073$ ,  $p = .269$ , and image,  $\beta = -.048$ ,  $p = .476$ , were not significant. Commitment attribution was also positively associated with recommend to others,  $\beta = .384$ ,  $p < .001$ , and need met,  $\beta = .449$ ,  $p < .001$ . In addition, compliance attribution was also found to be significantly associated with needs met in a positive direction,  $\beta = .142$ ,  $p = .021$ .

Table 7. Summary of hierarchical regression analysis for program evaluation

	Program Satisfaction <i>n</i> = 297 $\beta$	Recommend to Others <i>n</i> = 297 $\beta$	Needs Met <i>n</i> = 297 $\beta$
<u>Step 1</u>			
$R^2$	.137***	.091***	.104***
Dispositional cynicism	-.066	-.002	.040
Management cynicism	-.337***	-.301***	-.337***
<u>Step 2</u>			
$R^2$ change	.081***	.087***	.072***
Time pressure	.074	-.024	-.064
Role conflict	-.055	.057	-.002
Role ambiguity	-.299***	-.325***	-.284***
Emotional demands	-.022	-.032	.027
<u>Step 4</u>			
$R^2$ change	.078***	.120***	.180***
Commitment attribution	.289***	.384***	.449***
Control attribution	.069	.026	.036
Compliance attribution	.026	.060	.142*
Image attribution	.073	-.025	-.049
Total $R^2$	.296***	.298***	.356***

†  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Note: beta coefficients from step at which they were entered

# Chapter 5: Discussion

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This chapter discusses the findings generated from the analyses, which tested the hypotheses of this thesis (section 5.1). Findings in relation to wellness program features, participation, and evaluation are considered in section 5.2. Moreover, implications for theory (section 5.3) are discussed, as are limitations and future research avenues (section 5.4). Finally, implications for practice are outlined (section 5.5).

## 5.1 OVERALL FINDINGS

The overall research question addressed in this thesis focused on the role attributions about wellness programs play in the relationship between job demands and employee outcomes. Specifically, the extent to which positive and negative wellness program attributions moderate the relationship between job demands and employee outcomes was examined. The thesis incorporated JD-R and HR attribution theories to investigate the job demand - employee outcome relationship. The findings offer useful insights concerning the influence of perceptions about organisations' motivations for offering wellness programs (wellness program attributions) and their impact on (1) the job demand-employee outcome relationship and (2) program evaluation. The findings will be discussed starting with the direct effects, followed by the interaction effects, and remarks about the role of cynicism. Next, findings relating to the wellness program features, participation, and evaluation will be considered.

### 5.1.1 Wellness Attributions Direct Effects

First, the findings showed that commitment was the highest attribution ( $M = 3.47$ ), followed by image attribution ( $M = 3.25$ ), compliance ( $M = 2.97$ ) and control ( $M = 2.96$ ). Consequently, employees primarily perceived the organisational motivations behind their wellness program as being to improve their health and well-being and least as a way in which to reduce costs. It can therefore be argued, that employees tend to view their organisations favourably in regards to their underlying motivations for providing a wellness program, but also showed there are negative attributions as well, particularly for those with higher cynicism, as suggested by the pattern of bivariate correlations.

It is interesting to note that the next most prevalent attribution was image; as such employees saw another key organisational motivation to be maintaining a positive corporate image in the marketplace. In spite of the fact that image attribution was not significant in the regression analyses, the bivariate correlations indicated that high levels of image attribution might be undesirable, as this attribution was positively associated with cynicism, job demands, and job burnout.

Second, in terms of direct effects, only two attributions namely, commitment attribution and control attribution, were associated with employee outcomes. Specifically, commitment attribution was negatively associated with psychological strain, job dissatisfaction, and was nearing significance on turnover intentions. Overall, these results indicate that higher levels of commitment attribution were connected to better employee well-being. In contrast, control attributions had a positive association with psychological strain, signifying that high levels of control attribution were connected to higher psychological strain for employees. These findings indicate that, in the context of job demands, there are many positive effects for the employee and the organisation, when the employee attributes more positive rationales to wellness programs. As discussed in section 5.5 below, organisations should consider how they can increase these positive attributions to gain the positive flow-on effects.

### **5.1.2 Wellness Attributions and Job Demands Interactions**

Hypothesis one – wellness program attributions high on commitment will decrease the deleterious effects of job demands on employee outcomes – was partially supported based on the results of the multiple regression analyses testing the interaction effects. The significant interactions showed a consistent pattern in relation to the employee outcome of job dissatisfaction. These results indicated that, attributions high on commitment buffered the deleterious effects of time pressure, role conflict, and emotional demands on job dissatisfaction. Whereas at low commitment attribution, the effects of time pressure, role conflict, and emotional demands had a significant negative association with job dissatisfaction. As such, in line with the hypothesis, it was confirmed that having a positive attribution about the wellness program may act as a job resource, and potentially weaken the negative effects of particular job demands on job dissatisfaction.



However, the pattern of interactions identified between job demands and commitment attribution on days affected by poor health, and to a lesser extent on job burnout, were counter to expectations. Instead of weakening the negative effects of job demands, the results showed that high commitment attribution increased the undesirable effects of time pressure, role conflict, and role ambiguity on days impaired. In contrast, low commitment attribution had a buffering effect. Similarly, attributions high on commitment had a more marked association with job burnout compared to low commitment attribution.

A reason for the unexpected results could be that, when employees believe the organisation is providing a wellness program to support their well-being, they feel obligated to respond in kind. Indeed, it is possible that feeling that the organisation cares for, and invests in, one's well-being, creates a feeling obligation to reciprocate, in line SET, which in turn can foster over-committed employees who over-extend themselves. In support of this argument, the effort-reward imbalance model (Siegrist et al., 2004) acknowledges the notion of over-commitment and its potential to cause employee strain. Thus, days affected by poor health may go up for those with high commitment attribution because they are more likely to "...exaggerate their efforts beyond what is formally needed." (Siegrist et al., 2004, p. 1485). It also could be that, when employees perceive that their organisation genuinely cares about their well-being, and will not punish or judge them for working at reduced capacity, they might be more likely to report interruptions to their normal activities.

In sum, the findings regarding Hypothesis 1 suggest that, under conditions of high demands, high commitment attribution is beneficial in terms of decreasing job dissatisfaction, however, potentially harmful when it comes to stress outcomes. Thus, the commitment attribution, as it relates to wellness programs, appears to be a 'double-edged sword' and future research is needed to ascertain the contextual characteristics of the job situation and individual difference variables that might put employees more at risk for stress outcomes, despite being satisfied with the job.

Hypothesis two – wellness program attributions high on control will increase the deleterious effects of job demands on employee outcomes – was partially supported. As expected, results showed that wellness program attributions high on control increased the deleterious effects of role conflict and role ambiguity on days affected by poor health, while low control attribution had a buffering effect. Thus, when

employees believed their wellness programs was offered to reduce costs, they had higher odds of having one or more days affected or interrupted when role conflict and role ambiguity were high. It could be that if employees are feeling stressed already, believing their organisation is not making a genuine attempt to help them, will make them feel even worse.

However, in regards to job dissatisfaction, results indicated that the positive relationship between role conflict and this employee outcome was more marked for those employees with low control attribution compared to those with high control attribution. This finding was counter to expectations, and indicated that, in the context of job demands, the less employees perceived cost reduction to be the organisational motivation behind their wellness program, the more dissatisfied they were with their job.

An explanation for this result could be, that when someone has conflicting and incompatible demands but believes their organisation has a wellness program to keep costs low, they have less job dissatisfaction because these two messages, although of a negative nature, are in line with each other. This consistent messaging might mean that job satisfaction is not eroded, in contrast to if employees thought the organisation was providing the wellness program to improve well-being (commitment attribution) but was, at the same time, inconsistent in the demands asked in the job.

Hypothesis three – Wellness program attributions high on compliance will decrease the deleterious effects of job demands on employee outcomes – was supported in regards to time pressure and job dissatisfaction. Wellness program attributions high on compliance decreased the deleterious effects of time pressure on job dissatisfaction, while low compliance attribution exacerbated the effect. This finding confirmed that employees who perceive their organisation's efforts to comply with regulations and legislation as a positive message, produces a stress-buffering effect on the time pressure – job dissatisfaction relationship.

Hypothesis four – Wellness program attributions high on image will increase the deleterious effects of job demands on employee outcomes – was somewhat supported. Wellness program attributions high on image management increased the deleterious effects of role ambiguity on job burnout. Moreover, as mentioned, image attribution was found to be positively associated with variables such as cynicism, job demands, and job burnout, thus emphasising its undesirable link to employee attitudes. As such,

although image attribution is an external type, and thus previously viewed to not significantly influence employee attitudes according to Nishii et al. (2008), the results from this thesis suggest it may have a moderating role in the relationship between job demands and employee outcomes.

In sum, in relation to the first four hypotheses, it can be concluded that attributions are not, it would seem, inherently positive or negative. In other words, their moderating influence depends on the employee outcome in question. For example, in the context of job demands, high commitment attribution is good for job satisfaction, but, at the same time, negative for how stressed employees feel. Similarly, in the context of job demands, high control attribution is, as predicted, a negative trait, as it was associated with more job dissatisfaction. However, it also appeared that high control was beneficial, and associated with less odds of having one or more days affected by poor health, in the context of job demands.

### **5.1.3 Significance of Cynicism**

It is of interest to note several findings involving the cynicism variables. Results revealed that dispositional and management cynicism both had a significant positive effect on each of the employee outcomes: psychological strain, job dissatisfaction, job burnout, turnover intentions and days impaired. This supports findings from previous research (Chiaburu et al., 2013; Roberts & Zigarmi, 2014), and confirms that being cynical generally, and about management specifically, is linked to job-related outcomes.

In relation to the wellness attributions, both dispositional and management cynicism were negatively associated with commitment attribution, indicating that the more cynical an employee is, the less likely they are to see intent the organisational behind the wellness program as being to improve employee well-being. Interestingly, only dispositional cynicism was associated with the control attribution, such that, as cynicism increased, so too did perceptions that the wellness program was there to reduce costs. This indicates that a cynical view of the world and people more generally, makes an employee more likely see cost reduction as the organisational motivation behind the HR practice of wellness programs. An explanation for this could be that, having a negative outlook in general is mirrored by also having a negative outlook on one's organisation and the underlying motivations for its actions. This explanation would support that control attribution (i.e., cost reduction) is, and should, be

considered a negative perception and consequently its position under the control-focussed in the HR attribution model (Nishii et al., 2008) is valid.

Finally, both dispositional and management cynicism were positively associated with compliance and image attributions. In other words, the more cynical an employee was, the more they perceived the organisational intent behind the wellness program to be to comply with regulations, and to improve the corporate image.

In sum, these findings build on previous findings by Hewett et al. (2019) and suggest that cynicism does play a role when it comes to attributions about HR practices. In other words, interpretations and perceptions will differ based on personal trait differences. Overall, this research provided evidence to suggest that individual differences in terms of cynicism play a role in shaping attributions about wellness programs.

## **5.2 WELLNESS PROGRAM FEATURES, PARTICIPATION AND EVALUATION**

### **5.2.1 Wellness Program Features**

This thesis found that the majority of respondents had access to a single feature wellness program as opposed to a wellness program consisting of a variety of content. The most popular feature was mental health, followed by physical health. This finding is interesting since previous research has often reported physical health to be the most prevalent type offered to employees (Baicker et al., 2010; Parks & Steelman, 2008). For example, Baicker et al. (2010) reported that the most common wellness intervention used by employers was health risk assessment. However, this difference might reflect the contrast between the US versus the Australian context. In particular, workplaces in Australia have a legal obligation to protect workers from both psychological and physical risks as far as reasonably practicable, which is partially done through the careful design of systems and jobs to minimise risks to psychological health (Safe Work Australia, 2019). Moreover, Australia has seen several reviews of the mental health system (Griffiths, Mendoza, & Carron-Arthur, 2015), brought on by the increase in mental health issues, and this national attention may have filtered through to organisations and is thus likely to be reflected in the widespread offering of mental health content as found in this thesis.

### 5.2.2 The Role of Participation

In addition to the findings relating to the hypotheses, this thesis found that having participated in a wellness program in the past was positively associated with days impaired, indicating that those who attended had higher odds of having one or more days interrupted due to poor health than those who did not attend. The results also showed that past participation neared significance on job burnout, thus suggesting, similarly to the findings for days impaired, that those who had participated in their wellness programs in the past experienced higher levels of burnout than those who did not participate. Although such findings might suggest that people in need of more support are indeed making use of such programs, these findings are in direct contrast to previous research, which postulates that healthy people attend their wellness program more than those who are unhealthy (Ott-Holland et al., 2019, p. 174; Parks & Steelman, 2008, p. 65).

For example, Parks and Steelman (2008) found that those who attended their employers' wellness program had lower absenteeism rates compared to those who did not attend, and thus concluded that employees who participate have better health and consequently less days off due to sickness. An explanation for the variation in findings between this thesis and previous research could be that, whereas previous research measured absenteeism, this thesis used a broader measure capturing the extent to which employees felt poor health had prevented them from doing their usual activities both at and outside of work. Thus, it may be that employees were less absent, as found in earlier studies, but that their capacity at work was reduced or that their life outside of work was impacted. In light of this, this measure may have more in common with presenteeism than absenteeism, as the concept of presenteeism denotes attending work while ill (Johns, 2010), which the measure in this thesis could be argued to have captured.

Also noteworthy was the profile of those who participated. Although this research did not set out to identify predictors of prevalence rates in participation, the analyses presented in section 4.5.2, provide some insights into this issue. Results revealed that full-time employees were more likely to have attended their organisation's wellness program, compared to employees working on part-time basis. It is likely that employees who work part-time have less time at work to attend any

wellness program offerings than those who work full-time, but does highlight that management needs to ensure that part-timers are catered for in their wellness efforts.

Moreover, the data showed that employees with higher tenure were more likely to attend their organisation's wellness program. It also was evident that those with supervisor responsibilities were more likely to have attended than those who did not have such responsibilities. This finding adds to older research which argued that factors such as role position might influence participation such that lower and middle management were more likely to participate (Conrad, 1987). Although this thesis did not measure the exact level of supervisor responsibility, it did conclude that those employees with supervision duties of any kind attended more than employees without such duties. Overall, the findings concerning the profile of participants, provide new evidence to previous research, which did not establish any consistent effect for demographic variables, such as tenure, on participation (Robroek, van Lenthe, van Empelen, & Burdorf, 2009).

The similar findings for higher tenure and having supervisor responsibilities is unsurprising, as those who have worked longer in the organisation are more likely to have supervision responsibilities as confirmed by an independent samples t-test which showed that the mean tenure for those supervisor responsibilities ( $M = 11.50$ ) was significant higher compared to those without supervisor responsibilities ( $M = 9.18$ ),  $t = -2.859$ ,  $df = 514$ ,  $p = .004$ . It could be that, contrary to more senior and tenured employees, those who are more junior and non-supervisors do not feel they have the same freedom to attend, as they may feel this will be seen as prioritising non-work-related tasks over more pressing work priorities.

In extension to this argument, are the findings from previous work, which highlight that other factors such as supervisor support influence participation (Dickson-Swift et al., 2014). More specifically, leadership support for health promotion (Hoert, Herd, & Hambrick, 2018), management support of participation, consultation in implementation, relevant and interesting content, and convenience (Kilpatrick et al., 2017), favourable expectations, and a supportive context (Krick, Felfe, & Klug, 2019) all play a key role for participation in wellness programs. (Krick et al.) found intention to participate and actual participation was influenced by favourable expectations, a supportive context, leaders' self-care, and employee self-care, such that participation rates increased when these were higher. In extension to

these findings, other scholars have examined barriers to participation and found that availability, time, marketing, disparities in access, and workplace culture all act as key impediments to participation (Seward et al., 2019).

Past participation in one's wellness program was not influenced by the gender, age, and permanent versus temporary employment status of employees. As such, men and women of all ages and regardless of the permanent/temporary nature of their employment contract were equally like to attend their organisations wellness program. This is in contrast to findings from previous research, which established that age and gender might affect participation (Conrad, 1987; Sloan & Gruman, 1988). For example, although focused only on an exercise aimed wellness program, Abraham, Feldman, Nyman, and Barleen (2011) found that older, male employee were more like to participate. The contrast in findings could be due to how wellness programs were measured. That is, this thesis included both physical and psychological aspects, whereas past research has focussed primarily on one or the other. Consequently, it may be that findings were affected and would have be different had only physical-related wellness programs been considered. In particular, the studies with contrasting findings from this thesis focused exclusively on wellness programs of a physical nature. It may be that wellness programs that go beyond physical content appeal more to women, and that home care responsibilities, affected the extent to which younger women had time to attend the exercise program.

### **5.2.3 Wellness Program Evaluation**

In relation to reactions and evaluations of wellness programs, this thesis presents some unique insights regarding the role of wellness attributions for those employees who indicated that they had taken advantage of their organisation's wellness program in the past. Specifically, the result for each hypothesis, concerning wellness program evaluation, is discussed in the following.

Hypothesis five – wellness program attributions high on commitment will be related to higher levels of wellness program satisfaction and usefulness – had strong support. The results revealed that commitment attribution was significant and positively associated with perceived program satisfaction, likelihood of recommending to others, and feeling needs were met by the wellness program.

Hypothesis six – wellness program attributions high on control will be related to lower levels of wellness program satisfaction and usefulness – was rejected. No significant results were found for either control attribution on the program evaluation items. Contrary to expectations, attributions of high on control were not found to influence the extent to which wellness program participants felt satisfied with the program, would recommend the program to others, or felt the program met their needs.

Hypothesis seven – wellness program attributions high on compliance will be related to higher levels of wellness program satisfaction and usefulness – received some support. Compliance attribution was found to be significant and positively associated with employees feeling that the wellness program met their needs. It could be reasoned that when employees believe their wellness programs is there to comply with regulations, they are therefore also likely to think it has met their needs, because the legislation dictates that the program must comply with and fulfil these needs. However, it is possible that, in answering this question, employees are referring, not to personal needs, but to more organisational/regulatory needs.

Hypothesis eight – wellness program attributions high on image will be related to lower levels of wellness program satisfaction and usefulness – was rejected. No significant results were found for image attribution on the program evaluation items. Contrary to expectations, attributions high on image were not found to influence the extent to which wellness program participants felt satisfied with the program, would recommend the program to others, or felt the program met their needs. As such, although image attributions did significantly affect the job demand – employee outcome relationship, they do not have the same effect on evaluations regarding the value and usefulness of the wellness program. This may be because; the actual experience of participating will overshadow the perceptions employees’ hold, or might have held, prior to participation. Thus, evaluations will be shaped less by the extent to which they see image improvement as the organisational motivation.

In sum, the results for hypotheses five to eight revealed that in terms of reactions to, and evaluations of, wellness program, commitment attributions play a key role for overall satisfaction and usefulness judgements, whereas compliance attribution only influenced perceptions about usefulness. Surprisingly, neither control nor image attribution played a role in how employees evaluated wellness programs post



attendance, which could be because the experience of participating trumps any attributions held prior to attendance.

### **5.3 IMPLICATIONS FOR THEORY**

This study offer two main contributions to current HR attribution theory and the model presented by Nishii et al. (2008). The first contribution extends the original HR attribution typology, with early evidence to suggest that, in terms of the moderating role of attributions about wellness programs, the external attributions such as compliance and image are not, as previously suggested, neutral, but do in fact have a significant effect on the relationship between job demands and employee outcomes. Specifically, high levels of compliance decreased the harmful effects of time pressure on job dissatisfaction, while low compliance attribution intensified the negative effect. Moreover, high levels of image attribution increased the deleterious effects of role ambiguity on job burnout.

Additionally, this research offers unique insights into the diverging effects of each of the attributions. Specifically, although previous research has largely upheld that each attribution plays an entirely positive, neutral, or negative role (Hewett et al., 2018; Nishii et al., 2008), the findings from this study raise serious questions regarding this notion. Contrary to previous beliefs, it seems that HR attributions do not have an exclusively positive or negative influence, but can be associated with favourable or unfavourable outcomes depending on the employee outcome in question.

Furthermore, although the findings showed that the attribution variables were all positively correlated with each other (with the exception of commitment attribution to compliance attribution), the extent to which the wellness attributions interacted among each other was not tested. As such, the findings do not reveal whether any boosting or compensatory effects exist between the four attributions. This signifies that it is possible for an individual to score high or low on all of the attributions, and thus that the commitment vs control attributions are not counter to each other. In other words, high scores on commitment attribution do not necessitate low scores on control attribution, suggesting it is possible to hold competing views simultaneously. Given this finding, it is possible that patterns may exist in how respondents' scores across all attributions, and that such patterns, in turn, differ in the outcomes they produce. In addition to the suggestions in section 5.4 below, it is of value to investigate the

combinations of attributions in future studies through Latent Profile Analyses to determine if and how profiles exist across multiple attributions about wellness programs. Such findings not only offer value in the context of wellness programs but may also prove significant for HR attributions more broadly, thus furthering the original framework by (Nishii et al., 2008). The notion of attribution combinations was also presented by Gardner et al. (2019). As mentioned earlier, the authors proposed that, in terms of leader-member exchange, various combinations of convergent and divergent attributions including external-person, external-situational, and relational could lead to outcomes of a positive or negative nature. However, the speculations and patterns presented by the authors were never tested.

#### **5.4 LIMITATIONS AND FUTURE RESEARCH**

All research has inherent limitations that warrant acknowledgment. This thesis contains a number of limitations in relation to the sample, extent of analyses, and measurement tools.

First, the sample was restricted to Australian employees employed on a full-time, part-time, permanent, or temporary basis. As such, the findings cannot be generalised to other countries or alternative types of workers such as casual, contractors, self-employed or those working in the Gig-economy. Future research could test for employment status in more detail, to establishing why full-time employees participate more in wellness programs than part-timers.

Limitations should also be acknowledged in relation to the use of panel data. In particular, the use of such panels cannot guarantee a representative sample of the population (Hays, Liu, & Kapteyn, 2015), in this case Australian employees. However, the good variation of respondents across states and territories, industries, and employment status was encouraging.

Also, this study did not take into account organisational size or type. It has been suggested that organisational size can impact the extent to which different types of wellness programs are effective. More specifically, Anand Keller et al. (2009) found that tailoring wellness programs based organisational size and percentage of women employed is beneficial for improvement to workforce health and cost reduction. The authors suggested that fitness and safety programs are more effective in smaller organisations, whereas smoking cessation initiatives do better in the larger companies.

As such, future investigations might include organisational size as well as type to determine and control for their influence.

This thesis has a number of limitations in relating to the measurement instruments. The scales used were from a variety of disciplines including HR, occupational health, and stress management. Some of these scales were adapted to suit the context of this research and specifically focused on attributions about wellness programs. In total five one-item scales were used, with three of these scales used in previous research to capture job burnout, turnover intentions and job satisfaction (Takawira et al., 2014; Warr, 1990; West et al., 2009).

Although the original scale by Nishii et al. (2008) had two items to cover commitment attribution and control attributions respectively, only single items were used for each of these. This was due to the nature of the original items, which covered aspects to do with the quality and quantity of work delivered and therefore could be interpreted ambiguously. In particular, the second original commitment item read “To help employees do high-quality work” and might be interpreted negatively by respondents, thus not capturing the support and care element inherent in the commitment attribution. Future research should create and draw on multi-level scales with high reliability, instead of single-item measures, to optimise the validity of future findings. Hewett et al. (2018), similarly, called for the improvement of measures and theory in relation to HR attributions.

Additionally, the item used to capture past participation in wellness programs was unsophisticated as it did not detect how frequently an employee participated or how much time had passed since the last attendance. Future research could add these aspects to the measure of participation to enable a better understanding of if and how participation affects attributions about wellness programs and, consequently, the effect on the job demands - employee outcome relationship. In previous research examining talent management and the practice of high potential programs (HiPo), Malik et al. (2017) found that commitment-focused attributions mediated the relationships between participation in HiPo and the employee outcomes such as affective commitment, OCBs, job satisfaction and turnover intentions. Moreover, future research also might include other factors that have been shown to affect participation and which could also affect the influence of attributions. For example, variables such

as supervisor support for health, health climate, employee self-care, and co-worker support for health are worth considering.

The job demands included in this thesis were limited to role stressors and emotional demand. Future research could consider the conclusion of other demands, such as emotional labour and workplace conflict variables, given the heavy psychological toll such stressors have on employees. In addition, given that the GHQ-12 used in this thesis is a context-free measure of strain, future research should consider specific work-related strain measures. On a different note, treating the HR attributions as a climate variable (aggregated to the group level in which teams might have shared perceptions of the wellness attributions) might be worthwhile for future studies.

The cross-sectional research design of this thesis, based on time and financial constraints, does not allow for inferences of causality. It is not possible to establish the direction of the relationship between job demands, wellness program attributions, and employee outcomes. As such, although this thesis has theorised a specific sequential ordering of the variables, it is possible that the effect could work in the opposite direction. In this respect, it could be that employees who have higher wellbeing make more positive attributions about their organisation's wellness program. In sum, further experimental and longitudinal research on this topic is required in order to better establish causal relationships.

Another limitation is the potential for self-selection bias, which is the product of getting higher participation and response rates from individuals who feel strongly about the subject of the study than from those who do not feel as strongly about the subject (Zikmund, 2007). Consequently, employees who feel strongly about health and wellness might be more likely to participate compared to employees who feel less strongly about the matter and consequently this absence can reduce the generalisability of the results (Hair et al., 2010).

Moreover, the elimination of the undesirable effects of common method bias cannot be guaranteed. Common method bias or common method variance is a long-standing issue in behavioural research (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003) and can lead to type I and type II errors and thus to spurious findings. Method bias can cause two types of measurement error, namely random and systematic errors. Systematic measurement errors can lead to distorted conclusions as they can inflate or

deflate relationships between constructs. This occurs when the variance observed in responses are caused by the measurement instrument and not by the outlooks of the participants (Podsakoff, MacKenzie, & Podsakoff, 2012). Self-report measures were used in this thesis, as it was the perceptions of individuals that were of interest. This is line with theories of stress, which reasons that stress is a subjective and not an objective measure (Lazarus, 1990; Lazarus & Folkman, 1984) and that perceptions are what is of importance. This view was similarly applied to the measurement of employee outcomes in this thesis. However, effort was made to make scale items easy to interpret and reduce social desirability bias (Podsakoff et al., 2012). However, the risk of skewness in distribution due to respondents providing socially desirable responses in place of their true feelings and perceptions should be acknowledged. To lessen the risk respondents were guaranteed confidentially of their responses before commencing the survey.

On a final note, in relation to the decision to analyse each wellness program attribution independently to examine their unique effect, it should be acknowledged that this approach increased the number of tests and thereby the risk of type one error.

## **5.5 IMPLICATIONS FOR PRACTICE**

This thesis provides a number of practical implications for organisations in relation to the management and effectiveness of wellness programs. In particular, observations were made concerning how to maximise wellness program results and about the profile of participants. Given the direct effects found for commitment and control attribution on employee outcomes, organisations will do well by attending to how employees interpret the organisational intentions behind wellness programs. By influencing these perceptions, such that employees perceive the intentions to be to improve their well-being, as opposed to reduce costs, organisations can lessen psychological strain and job dissatisfaction. As found by previous research, one way to positively influence employee perceptions is to ensure messages regarding HR practices are interpreted by employees as intended by management, in particular as distinctive, consistent, and consensually across employees (Sanders & Yang, 2016). However, it is also recommended that employers consider the messages they send regarding wellness programs and ensure such messages do not create a feeling of over-commitment.

Moreover, although this thesis showed that some attributions did moderate the influence of job demands on employee outcomes in a positive manner, others did not. In regards to past participation, the findings suggest that employees who need the wellness program may be the ones who attend. For example, time pressure, role conflict, emotional demand, and days impaired were all higher for the subset of respondents who participated compared to those who did not participate. Organisations should find this a reassuring result, as it would seem that the investments made into wellness programs is worthwhile and reach those employees who most need such services. Although, it is recognised that participation in wellness programs could also be attributed to other variables not measured in this thesis.

Further, if organisations wish to improve wellness program participation rates across their workforce, they will benefit from examining ways to improve diversity in relation to who participates. Finding methods to encourage participation from people in part-time roles, more junior employees, and those without supervision duties is important, as these groups were under-represented in the subset that participated for this thesis.

Finally, the findings suggest that role ambiguity is associated with employees' reactions and evaluations when they participate in their organisation's wellness program. To optimise wellness program evaluations and get better results, in terms of how satisfied and useful employees find the program, the organisation may focus on ways to reduce role ambiguity.

## **5.6 CONCLUSION**

This thesis is unique in its focus, which moves beyond participation, and instead investigates the impact of wellness program availability in the stress process for employees. The question guiding this research was; what role do attributions about wellness programs play in the relationship between job demands and employee outcomes?

Unlike previous HR attribution research, this study applied attributions specifically to the HR practice of wellness programs. Thus, by focussing on wellness programs, this study answered the call by Hewett et al. (2018) to investigate additional HR practices. Moreover, this study was unique in examining the extent to which

attributions about wellness programs moderate the relationship between job demands and employee outcomes.

This study provides insights for scholars and organisations concerning how to maximise the outcomes achieved through health and wellness programs. Results showed that commitment attribution had a negative main effect on psychological strain and job dissatisfaction, while control attribution had a positive main effect on psychological strain. The interaction effects varied depending on the employee outcome in question. Results showed that high commitment attribution had a buffering effect on the relationship between some job demands (time pressure, role conflict, and emotional demands) and job dissatisfaction, and, contrary to expectations, an exacerbating effect on the relationship between some job demands (time pressure, role conflict, role ambiguity) and days impaired. Low control attribution had a more marked effect on the relationship between role conflict and job dissatisfaction compared to high control attribution. As expected, stress-exacerbating effects were found for high control attribution on the relationship between some job demands (role conflict and role ambiguity) and days impaired.

In extending theory, the findings presented in this thesis suggest that the external attributions such as compliance and image are not as previously suggested neutral but do have a significant effect. Additionally, this research offered unique insights into the effects of each of the attributions. Contrary to previous beliefs, it seems that HR attributions do not have an exclusively positive or negative influence but can be associated with favourable or unfavourable outcomes depending on the employee outcome in question. Moreover, as attributions were positively correlated with each other, it is thus possible to hold competing views simultaneously, indicating that profiles may exist and be worth further examination.

Moreover, the thesis found that full-time employees with high tenure and supervisor responsibilities were most likely to have attended their organisation's wellness program and that role ambiguity was associated with less favourable wellness program evaluations. Thus, to improve employee satisfaction with the wellness program and maximise the outcomes obtained, organisations will benefit from investigating ways to reduce role ambiguity.

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# Appendices

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## Appendix A

### Screening Questions

Qualifying Question	Answer
1 Are you employed?	No – unfortunately you do not qualify, thank you for your time.
2 What is your current employment status?	Casual / Contractor / Gig economy / Self-employed - unfortunately you do not qualify, thank you for your time.
3 Do you have a health and wellness program in your organisation? Workplace health and wellness programs can be any activity or service, offered either in the workplace itself or off-site, that aims to promote good health, and improve the physical and/or mental health and well-being of employees.	No/ Unsure - unfortunately you do not qualify, thank you for your time.

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## Appendix B

### Demographic Questions

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- 1 What gender do you identify with?
  - 2 Age?
  - 3 What state do you reside in?
  - 4 Which industry do you work in?
  - 5 What is your main occupation? In other words that is the name or title of your main job?
  - 6 How long have you been working for your current organisation?
  - 7 Do you currently supervise staff?
-

## Appendix C

### Measurement Scales

#### Dispositional Cynicism (K = 6)

(Rating: 1 = very untrue of me, 5 = very true of me)

1. I feel like people often are out to get something from me
2. I feel that others are out to get me
3. I believe that, sooner or later, people always let you down
4. I suspect hidden motives in others
5. I believe that people are basically honest and good (R)
6. I am pretty trusting of others' motives (R)

#### Management Cynicism (K = 5)

(Rating: 1 = strongly disagree, 7 = strongly agree)

1. I often question the motives of management in my organisation
2. Management in my organisation is always up-front about its reasons for doing things (R)
3. I believe that there are ulterior motives for most of the decisions made by management in my organisation
4. I think that management would misrepresent its intentions to gain acceptance for a decision it wanted to make
5. Management is not always honest about its objectives

#### Time Pressure (K = 3)

(Rating: 1 = never, 7 = always)

1. I have unachievable deadlines
2. I have unrealistic time pressures
3. I have to neglect some tasks because I have too much to do

#### Role Conflict (K = 3)

(Rating: 1 = never, 7 = always)

1. I do things, which are accepted by one person, but not by another
2. Different people at work expect conflicting things from me
3. I receive incompatible requests from two or more people

#### Role Ambiguity (K = 3)

(Rating: 1 = never, 7 = always)

1. I am clear what is expected of me at work (R)
2. I understand how my work fits into the overall aim of the organisation (R)
3. I am clear what my duties and responsibilities are (R)

Emotional Demand (K = 3)

(Rating: 1 = never, 7 = always)

1. Is your work emotionally demanding?
2. Does your work demand a lot of you emotionally?
3. Does your work put you in emotionally upsetting situations?

Wellness Program Attributions (K = 6)

(Rating: 1 = not at all, 5 = to a great extent)

1. So that employees will feel valued and respected—to promote health and well-being
2. In order to keep costs down
3. Because they are required to by the union contract
4. Because it is an OH&S requirement
5. To keep up with what other organisations are doing
6. To create a positive image in the marketplace and earn the company a reputation for being a leader in the industry

Psychological Strain (K = 12)

(Rating: 1 = never, 7 = always)

1. Felt capable of making decisions about things? (R)
2. Felt constantly under strain?
3. Lost sleep over worry?
4. Felt able to concentrate? (R)
5. Been able to enjoy your normal day-to-day activities? (R)
6. Felt you play a useful part in things? (R)
7. Been able to face up to problems? (R)
8. Been feeling reasonably happy, all things considered? (R)
9. Felt you couldn't overcome your difficulties?
10. Been feeling unhappy or depressed?
11. Been losing confidence in yourself?
12. Been thinking of yourself as worthless?

Job Dissatisfaction (K = 1)

(Rating: 1 = strongly disagree, 7 = strongly agree)

1. I am satisfied with my job (R)

Job Burnout (K = 1)

(Rating: 1 = never, or almost never, 7 = always, or almost always)

1. I feel burned out from my work

Turnover intentions (K = 1)

(Rating: 1 = strongly disagree, 7 = strongly agree)

1. Do you intend to leave the organisation in the next 12 months?

Days Impaired (K = 1)

(Rating: 1 to 30)

1. During the past 30 days, for about how many days did poor physical health or mental health keep you from doing your usual activities, such as employment, recreation, caring for self, caring for others?

Wellness Program Evaluation (K = 3)

(Rating: 1 = strongly disagree, 7 = strongly agree)

1. How satisfied are you with your organisation's health and wellness program?

(Rating: 1 = no, not at all, 7 = yes, very much so)

2. Would you recommend your organisation's health and wellness program to colleagues?
3. Overall, have your needs been met by your organisation's health and wellness program?