

**Transformational versus servant leadership: their role on employee  
eudaimonic well-being**

Dissertation submitted in partial fulfilment of the requirements for the degree of  
**Master of Science in Applied Psychology**  
at the **University of Canterbury**

**Rosie Armour**  
Supervised by **Katharina Naswall**

**Department of Psychology**  
**University of Canterbury**

## Table of contents

<b>Acknowledgements .....</b>	<b>3</b>
<b>Abstract.....</b>	<b>4</b>
<b>Introduction.....</b>	<b>5</b>
Mental well-being in the workplace .....	7
Leadership and mental well-being .....	8
Transformational leadership .....	9
Servant leadership .....	11
Servant leadership and employee well-being .....	13
Leader well-being and employee well-being.....	15
Research questions.....	16
<b>Method .....</b>	<b>16</b>
Participants.....	16
Procedure.....	17
Measures .....	18
<b>Results .....</b>	<b>21</b>
Quantitative Data.....	23
Qualitative Data .....	26
<b>Discussion.....</b>	<b>28</b>
<b>References.....</b>	<b>39</b>
<b>Appendices.....</b>	<b>50</b>
Invitation Email for Survey Participants .....	51
Information Sheet for Survey Participants .....	52
Full Questionnaire .....	53
Final Exploratory Factor Analysis SL-28.....	56
Final Exploratory Factor Analysis MLQ .....	58
Final Exploratory Factor Analysis WEMWS .....	60

### **Acknowledgements**

Firstly, I would like to thank my supervisor Katharina Naswall. Your support and guidance this year has been invaluable. Thank you for all your encouragement, expertise and chocolate support over this past year. I would also like to thank Joana Kuntz and Chris Burt for the knowledge and skills you have shared, I have learnt a great deal from all of you over the past two years. Also, a big thank you to my amazing APSY classmates for all the laughter and support during some rather stressful times. Thank you for making the last two years the best it could be.

Secondly, I would like to thank Mark McSherry for all your hard work and support during this last year. Thank you for all your encouragement and guidance, working with you on this dissertation was an immense pleasure and I am incredibly grateful for the opportunity. Also, a huge thank you to everyone who participated in my research. This would not have been possible with you.

A huge thank you to my beautiful friends and family for all their support and assistance, not only during my masters but my entire time at university. A special thanks to Elise for sharing an office with me and for being such a wonderful person. To my friends Georgia and Shannon, I am so grateful and lucky to have you in my life, your friendship means the world to me and is undoubtedly one of the best things to come out of this experience. There is no way I would have made it through the last two years without you both.

Finally, my biggest thanks goes to my parents. Your unwavering support, both emotional and financial over the past six years has made this all possible. Thank you for your endless love, guidance and reassurance, I will be eternally grateful.

### **Abstract**

The increasing mental health crisis has seen organisations work to help promote and foster the mental well-being of their employees. Leadership is one of the most utilised tools in this pursuit. The current study aims to explore the role of transformational and servant leadership on employee eudaimonic well-being, a relatively unexplored element of mental health. In addition it aims to explore the link between leader eudaimonic well-being and employee eudaimonic well-being. An online self-report questionnaire was distributed to 266 employees within a scientific research organisation. The results revealed that both transformational and servant leadership were significantly positively associated with employee eudaimonic well-being. However, transformational and servant leadership were highly correlated, limiting the scope of the analysis and suggesting that transformational leadership is a stronger predictor of employee eudaimonic well-being. It was further found that leader eudaimonic well-being was not significantly associated with employee eudaimonic well-being. These results have both theoretical and practical implications for understanding the most effective way to promote employee well-being. Future research should aim to expand the current analyses to determine the potential influence of organisational contextual factors, as well as further analysing the underlying mechanisms linking transformational and servant leadership to employee eudaimonic well-being.

## **Introduction**

Mental health in New Zealand has increasingly become a prominent issue in society gaining national attention. The 2018 Government Inquiry into Mental Health and Addiction reported that serious mental health issues cost New Zealand 12 billion dollars or approximately 5 percent of its gross domestic product (Asher et al., 2018). Sources of mental illness stem from multiple areas, however, there is no doubt that the workplace environment has a significant role on employee mental health and well-being (Warr, 2003; Raya & Panneerselvam, 2013). In this wake of increasing mental health issues, the understanding of what constitutes a healthy working environment has extended from physical safety to include mental/psychological well-being (Kelloway & Day, 2005). Now, a healthy organisation is seen as not just one that seeks to maximise profits, but also to promote a healthy business environment through the well-being of employees (Di Fabio, 2017; Grawitch & Ballard, 2016). In fact, research indicates that the mental well-being of employees significantly impacts performance output and in turn increases organisational profit (Di Fabio, 2017; Raya & Panneerselvam, 2013; Haddon, 2018; Guerci et al., 2019) . Therefore, the promotion of well-being is not only ethical but a strong strategic move (Di Fabio, 2017; Haddon, 2018; Raya & Panneerselvam, 2013).

For the past several decades, a growing body of research has examined the influence of leadership on employee health (Inceoglu et al., 2017). It is well established that leadership has a powerful impact on employee mental well-being (Inceoglu et al., 2017). However, this research has been dominated by a single leadership style; transformational leadership (Inceoglu et al., 2017). While transformational leadership is clearly influential in improving a variety of employee outcomes, there is growing concern that the current literature has failed to take employee mental well-being seriously with regards to which form of leadership is most impactful. Alternative leadership styles that focus predominately on employees instead

of organisations, as transformational leadership does, have been largely ignored. Servant leadership, for example, encompasses a variety of traits that are decidedly more employee focused, centered on helping employees grow for their own personal interest while working to fulfill their needs (Di Fabio & Peiro, 2018; Greenleaf, 1997). Servant leadership has been studied for decades, however, research on its relationship with employee mental well-being is lacking. Furthermore, in addition to leadership style, there has been a rising popularity in understanding how leader mental well-being effects employee mental well-being. Research by Skakon and colleagues (2010) indicates that the psychological health of leaders can influence the experience of stress within employees, however, little research has examined how it effects employee mental well-being in a positive way.

Inceoglu and colleagues (2017) also highlighted the lack of diversity in mental well-being measures. Well-being is an umbrella term for a variety of different outcomes. At present the most commonly researched measures are negative aspects of well-being (i.e. stress and burnout) and hedonic well-being (i.e. job satisfaction) (Inceoglu et al., 2017). While an important factor, hedonic well-being alone is incomplete (Keyes & Annas, 2009; Joshanloo, 2015). Eudaimonic well-being provides a more in-depth and complete measure of mental well-being, but is far less researched. It is important to understand how to best promote eudaimonic well-being to ensure that the focus does not rest solely on decreasing negative outcome and ones satisfaction with their job, but also helping employees to thrive in their working environment.

At present, modern organisations invest heavily in the development of leaders. Many of these leadership programmes incorporate aspects of both transformational and servant leadership, with the intent that improvements in leadership behaviours and skill will lead to better business outcomes. With an increasing focus on promoting positive employee well-being, organisations desire clarification on the most effective ways to achieve this. Therefore,

the aim of the current study is twofold. Firstly, it explores the relationship between transformational leadership and servant leadership with employee eudaimonic well-being, to determine which style is most influential. Secondly, in light of research highlighting the influence of leader health on employee health, it examines the direct relationship between leader eudaimonic well-being and employee eudaimonic well-being.

### **Mental well-being in the workplace**

Like physical health and well-being, mental well-being is a multidimensional construct. Psychological/mental well-being has previously been referred to as an individual's subjective experience (Grant et al., 2007). This can be differentiated into affective (feeling) and cognitive processes (thinking) which are included in both positive and negative forms (Warr, 2013; Inceoglu et al., 2017). Negative well-being is most often measured as psychological stress and burnout. Positive well-being can be further broken down into hedonic and eudaimonic (Ryan & Deci, 2001; Inceoglu et al., 2017; Warr, 2013). Hedonic well-being is most often conceptualized as life satisfaction and the subjective experience of pleasure which includes the balance of negative and positive thoughts; that is the presence of positive affect and absence of negative affect (Joshani et al., 2016; Grant et al., 2007). The most widely used measure utilized in organisational psychology to represent hedonic well-being is job satisfaction (Grant et al., 2007). Eudaimonic well-being is referred to as feelings of fulfillment, purpose in one's efforts and the realization of human potential. Examples include learning, personal growth and vitality. It is most often captured/measured as thriving (Joshani et al., 2016; Grant et al., 2007; Deci & Ryan, 2008). Eudaimonic well-being offers an important extension from hedonic well-being by focussing on how one responds to life challenges rather than how pleasantly or unpleasantly one feels (Joshani, 2015). As organisations work to not only decrease employee stress but increase their ability to thrive in

their working environment, it is important to understand the most effective means to achieve this.

### **Leadership and mental well-being**

As stated previously, leadership is a primary factor in employee mental well-being (Kelloway & Barling, 2010). Decades of research has solidified the effects of poor leadership on negative employee outcomes (Kelloway & Barling, 2010; Kelloway et al., 2005; Offermann & Hellmann, 1996). For example, the relationship between subordinates and supervisors has been reported to be one of the most common sources of workplace stress (Offermann & Hellmann, 1996; Kelloway et al., 2005). While this research has primarily focussed on poor/negative leadership, the last decade or so has seen a substantial increase in research focussing on the benefits of positive leadership forms on well-being. It is well established that leadership can be highly effective in decreasing employee stress, job anxiety and depression (Kuoppala et al., 2008). Leaders have the ability to both increase and decrease negative mental health outcomes of their followers.

When focussing on positive conceptualizations of mental well-being there is consistent evidence demonstrating the relationship between leadership and job satisfaction (Inceoglu et al, 2017). Job satisfaction is no doubt an important employee outcome and is a strong indicator of ones performance and working experience. However, this measure is narrow and does not fully capture mental well-being as a concept (Inceoglu et al, 2017). The consistent use of job satisfaction as a primary measure is part of a larger issue in which researchers have failed to take employee mental well-being seriously (Inceoglu et al, 2007). Inceoglu and colleagues (2017) argued that within the leadership literature, employee well-being has been largely ignored in favour of performance. It is most often included as a secondary outcome variable or as part of a wider performance model (Montano et al., 2017; Grant et al., 2007; Inceoglu et al, 2017). Research examining the relationship between



leadership and employee eudaimonic well-being is lacking. This calls into question whether these findings can be utilized in the same way to help employees thrive in the workplace beyond being satisfied with their jobs. The current leadership styles promoted as effective tools to increase job satisfaction may fall short in the promotion of eudaimonic well-being.

### **Transformational leadership**

Transformational leadership is one of the most thoroughly researched leadership styles (Wang et al., 2011). It is widely regarded as one of the most effective forms of leadership (Knippenberg & Sitkin, 2013). Its link to a variety of organisational and employee outcomes have been well documented and include everything from performance and culture to job satisfaction and well-being (Braun et al., 2013; Choi et al., 2016; Arnold, 2017; Hilenbrand & Sacramento, 2018). Transformational leadership can be categorized into four core dimensions; individualised consideration, intellectual stimulation, inspirational motivation and idealised influence (Bass, 1985; Bass et al., 1987; Burns, 1987).

First, individualised consideration refers to a leader being able to develop relationships with subordinates, focus on their individual differences and work to support their development (Avolio & Bass, 1995; Judge & Piccalo, 2004; Banks et al., 2016). Second, intellectual stimulation refers to a leader who fosters and promotes a culture where intelligent and rational thinking is developed by employees (Judge & Piccalo, 2004; Banks et al., 2016). Intellectually stimulating leaders are able to provide employees with the tools to solve complex problems while encouraging creative thinking (Judge & Piccalo, 2004; Banks et al., 2016). Third, inspirational motivation refers to a leader using interactive communication techniques to encourage employees to focus their efforts in order to achieve shared goals and meet high expectations (Judge & Piccalo, 2004; Banks et al., 2014; Stone et al., 2004). Finally, idealized influence refers to the charismatic nature of a leader. Leaders who display idealized influence are respected and admired while engaging in behaviours that

inspire followers to emulate them (Judge & Piccalo, 2004; Banks et al., 2014; Stone et al., 2004).

Transformational leaders arouse followers to a higher level of thinking (Bacha, 2014). This is often achieved by aligning followers individual goals to that of the organisations by transforming their individual values into higher order collective values (Parolini et al., 2009; Burns, 1978; Bacha, 2014). Transformational leaders encourage followers to look beyond self-interest for the good of the collective, allowing and encouraging followers to attain and stretch for the overall organisational goals (Stone et al., 2004). As such, transformational leadership has been shown repeatedly to enhance a variety of employee outcomes including performance, commitment and engagement (Inceoglu et al., 2017; Choi et al., 2016). Transformational leadership is said to help promote employee mental well-being through the increased self-efficacy of followers. Self-efficacy allows followers to reframe negative and stressful situations in a positive way, decreasing the experience of stress and negative affect (Sumet et al., 2005; Wu et al., 2004; Djourova et al., 2019). Transformational leadership has also been shown to positively benefit employee mental well-being (Arnold, 2017). These benefits include both direct and indirect ways. Direct ways encompass decreased burnout, increased positive affect and increased subjective well-being (Arnold, 2017; Hildenbrand et al., 2018; Bono et al., 2007; Jacobs et al., 2013). Indirect ways include increased meaningfulness of work, decreased job demands, leader self-efficacy and trust in leader (Liu et al., 2010; Arnold et al., 2007; Fernet et al., 2015).

The link between transformational leadership and mental well-being (negative and hedonic) has been relatively well researched and established. However, research examining the link between transformational leadership and employee eudaimonic well-being is scarce. Not only this, there is growing concern that the way in which transformational leadership affects employee mental well-being is poorly understood (Knippenberg & Sitkin, 2013;

Inceoglu et al., 2017). Inceoglu and colleagues (2017) argue that many studies investigating transformational leadership and well-being have relied heavily on performance based research when developing the theoretical basis for the transformational leadership and well-being link. Transformational leadership, at its core, is focussed on the organisation and encouraging employees to reach for organisational goals (Stone et al., 2004). While employee growth and development are an important part of transformational leadership, they must always be related to the organisations success (Smith et al., 2004). Transformational leaders can be highly beneficial for employees, but overall their focus lies with the organisation rather than the needs of the employee (Stone et al., 2004; Smith et al., 2004). In order to ensure organisations have the best chance to fostering the mental health of their employees it is important to consider whether transformational leadership is in fact the most effective leadership style, or if the answers lies with an alternative style.

### **Servant leadership**

Servant leadership was originally conceptualized over four decades ago by Greenleaf (1977). It was first created as a positive philosophy in an attempt to change the traditional organisational pyramid with respect to the leader-follower relationship (Kumar, 2018). Today it can be utilized as both a philosophy and a working model of leadership in organisations (Kumar, 2018; Spear, 2001). The original vision of servant leadership centers around the core idea that the leader acts as a servant to their followers (Greenleaf, 1977; Smith et al., 2004). The primary goal of the leader is to serve others, putting their needs, desires and goals before their own (Stone et al., 2004; Greenleaf, 1977). This can extend beyond that of the workplace to include the community. Servant leaders build an understanding of their followers needs and desires through one-on-one communication. They then use this information to help them reach their full potential. Servant leaders work to develop and empower subordinates without

the expectation of acknowledgement (Smith et al., 2004; Linden et al., 2014). Greenleaf (1977) also highlighted, that servant leaders place the welfare and well-being of followers as a top priority (Yasir & Mohamad, 2015; Page & Wong, 2000).

Parolini, Patterson and Winston (2009) and Stone and colleagues (2004) highlighted the core distinction between servant and transformational leadership as pertaining to the focus of the leader. Where transformational leaders are focussed on building commitment to the organisational vision and work to reach collective goals and objectives; servant leaders are focussed on serving the needs of the followers first and the achievement of organisational objectives is a secondary outcome (Stone et al., 2004). While transformational leaders are still concerned for their followers, the need to serve them is an overriding focus for servant leaders (Stone et al., 2004). The transformational leaders focus is directed to ensuring the organisation's objectives are accomplished by working to build followers organisational commitment (Stone et al., 2004). Although both leadership styles have been around for a similar period of time, research on servant leadership is relatively scarce. As such, no one clear definition and operationalisation has been agreed upon. To this day there remain several models/measures of servant leadership, however all of them share a similar dimensional structure (Green et al., 2016). The current study utilizes Linden and colleagues (2008) measure of servant leadership. This measure was selected upon recommendation by Eva and colleagues (2019). It has been tested against Hinkins (1995) criteria for scale development and validation. The psychometric properties have been consistency validated and it offers a broad dimensional structure, inclusive of the core global aspects of servant leadership.

Linden and colleagues (2008) identified seven sub-dimensions within servant leadership (see table 1). First, emotional healing, refers to the act of showing concern for subordinate's personal concerns. Second, creating value for the community, refers to a genuine concern for helping and being involved in the wider community. Third, conceptual

skills, refers to knowledge of the organisation and key tasks, allowing leaders to support and assist followers. Fourth, empowering, which refers to the encouragement and facilitation of others. Fifth, helping subordinates grow and succeed, refers to prioritising and showing genuine concern for the development and growth of followers through mentoring and support. Sixth, putting subordinates first, refers to communicating clearly to followers that satisfying their work needs is a priority. Finally, behaving ethically, refers to interacting honestly, fairly and openly with followers.

Table 1.

*Dimensions measured by the servant leadership scale (Linden et al., 2008)*

Emotional healing	Helping subordinates grow and succeed
Giving back to the community	Putting subordinates first
Conceptual skills	Behaving ethically
Empowering	

### **Servant leadership and employee well-being**

Due to a lack of servant leadership literature, there is minimal research examining the role it plays in employee well-being. However, unlike transformational leadership, prioritising the well-being of employees is a key component of servant leadership (Greenleaf, 2002; Yasir & Mohamad, 2015; Page & Wong, 2000). Servant leaders promote employee well-being and other positive employee outcomes primarily through creating a positive psychological working environment and enhancing the psychological needs of followers, a key determinant of well-being (Jit et al., 2017; Ozyilmaz et al., 2015; Rivkin et al., 2014; Ryan & Deci, 2001). Servant leaders create an environment that is supportive and safe for employees to highlight both personal and professional issues, allowing them a working environment that is able to fulfil their needs (Rickin et al., 2014). In doing so servant leaders

are able to form strong and sustainable long-term relationships. The current available research suggests a link between servant leadership and employee psychological health. Rickin et al. (2014) examined the relationship between servant leadership and negative indicators of employee psychological health. They found a significant negative relationship between both short-term and long-term indicators of job strain, a well-known job stressor. Indicating that servant leadership is a potential deterrent of employee job stress. Coetzer et al. (2017) examined the relationship between servant leadership and employee burnout. They found that job resources mediated a negative relationship between servant leadership and burnout.

With regards to positive employee well-being the research is similarly lacking. The link between servant leadership and hedonic well-being has been established but is minimal. Donia et al. (2016) examined the link between servant leadership and a variety of employee outcomes. They found that servant leadership was significantly positively associated with employee job satisfaction. Farrington & Lillah (2019) found a similar relationship in health care practitioners. They extracted four servant leadership dimensions from several models and examined their relationship with job satisfaction. They found that developing others and caring for others, dimensions extracted from the Linden et al. (2008), were both positively related to employee job satisfaction. Previous research has also examined servant leadership and subjective well-being, finding a positive relationship. Maula-Bahsh and Raziq (2018) investigated the relationship between the seven sub-dimensions of servant leadership (Linden et al., 2008). They found that emotional healing, empowerment and conceptual skills were all significantly positively related to the affective dimension of employee subjective well-being. This is one of the only studies to examine the individual dimensions within servant leadership and their link to well-being, rather than treating servant leadership as one construct. So far, the link between servant leadership and eudaimonic well-being has neither been established

nor researched. The current study will investigate the association between transformational leadership, servant leadership and employee eudaimonic well-being. In order to maximise the practical value of any potential findings, this study will also investigate the individual dimensions of servant leadership and how they relate to well-being.

### **Leader well-being and employee well-being**

With the increasingly popularity of leadership development to help increase employee well-being, researchers have begun to examine the influence of a leaders own mental health on their employees' mental health. As has already been established, leader behaviour has a significant impact on employee health. These behaviours are important to establish and develop in leaders, however, a key component of increasing employee well-being may lie directly with the leaders themselves. Previous research has indicated that the psychological health and experience of stress by leaders has a significant effect on the health of employees (Skakon et al., 2010). That is, a leader's stress can influence stress and affective well-being in employees. Leader burnout has also been positively associated with employee anxiety and burnout (Vealey et al., 1998; Price & Weiss, 2000). However, the majority of this research is centered around the negative well-being of leaders and employees.

Research has indicated that when leaders and employees interact, they experience similar emotions, both positive and negative (Glaser & Einarsen, 2006). Poor affective well-being and high anxiety is positively associated with the same outcome in subordinates (Skakon et al., 2010). Previous research has also highlighted the importance of leader mindfulness on employee mental well-being (Pinck & Sonnentag., 2018). However, there is currently little research investigating the effect of positive leader well-being (eudaimonic) on employee well-being. The current study also aims to investigate this relationship, to

determine whether a similar direct relationship can be found with positive eudaimonic well-being.

### **Research questions**

Based on the literature, the current study aims to address the following research questions

RQ1. Are transformational and servant leadership positively associated with employee eudaimonic well-being?

RQ2. Which leadership style, transformational or servant, is most strongly associated with employee eudaimonic well-being?

RQ3. Which dimensions of servant and transformational leadership are most strongly associated with employee eudaimonic well-being?

RQ4. Is leader eudaimonic well-being directly positively associated with employee eudaimonic well-being?

## **Method**

### **Participants**

Participants in this study were full time workers within a New Zealand scientific research organisation, consisting of 1000 employees. The organisation has been investing in leadership development for the past 18 years. Their current model is heavily reliant on transformational leadership. However, they have an increasing desire to understand how to best foster well-being in their employees and to determine whether their current approach needs to be modified. A total of 266 participants returned useable responses, resulting in a response rate of 26.6%. It is estimated that online survey's distributed through organisations yield a response rate of approximately 30% (Nulty, 2008; Baruch & Holtom, 2008). The response rate for the current study is below this average. Despite this, it was determined that



a good sample was obtained. Prior to the distribution of the survey the power statistics were calculated using the statistical programme G Power (Faul et al., 2009). The number of predictor variables, outcome variables, expected effect sizes and significance level were analysed to determine the minimum sample size needed to reach power ( $N= 155$ ). The current study has high statistical power.

To preserve anonymity in responding, gender, age and ethnicity were the only demographic variables collected. The sample comprised of 43.6% males and 56.4% females. No participants were recorded as gender diverse. In total, 65.4% of participants were 'New Zealand European', 13.2% 'Other European', 1.8% Mori, 1.9% 'Pacific Peoples', 10.9% 'Asian', 2.3% 'Middle Eastern/Latin American/African' and 6% selected 'Other'. The largest age group was 35-44 years with 32.7% of participants, 23.7 were 55-64 years, 21.4% 45-54 years, 19.9% 25-34 years, 1.9% 65-74 years and 0.4% 18-25 years. No other demographic information was recorded. As part of the survey, participants were asked to indicate whether they were a group/team leader. In total, 74 participants (27.8%) were identified as group/team leaders and 192 (72.2%) were identified as not holding a leadership position within the organisation.

## **Procedure**

A self-report, cross-sectional design was used for this study. Responses were collected at one time point over a period of three weeks. A link to the Qualtrics survey was sent to the organisational contact (Head of Organisational Development) to be emailed through to employees, inviting them to participate in a survey regarding different leadership behaviours and their mental well-being. The survey remained open on Qualtrics for 3 weeks from the date of the email. A follow-up reminder email was sent to everyone a week and a half after the initial invitation in an attempt to increase the response rate. Previous research

has found that follow-up emails can increase responses by up to 25% (Sheehan & Hoy, 1997 as cited in Sheehan, 2001). A copy of the email invitation sent to employees is provided in Appendix A. If participants wished to accept the invitation, they clicked on the link provided which directed them to the online Qualtrics survey.

The beginning of the survey included an information sheet and consent form (Appendix B). This form contained further information about the study. This included the purpose of the research, how each participants data would be treated and protected, and that the study had gained approval from the University of Canterbury Human Ethics Committee. Contact information for the primary researchers and supervisor was also provided, along with an email address for the Ethics Committee in case participants had any questions or concerns about the study and/or their participation. Participants were asked to read the information carefully and were required to agree to the outlined terms before they could participate. Participants gave their consent by selecting to continue with the survey. The study was endorsed by the participating organisation and employees were approved to complete the survey on company time and at their place of work.

Participation in the survey was voluntary and anonymous. As per the organisations wishes, participation was not incentivised through monetary rewards. At the end of the survey, participants were given the option to provide an email address if they wished to receive a summary of the findings at the conclusion of the study. The link provided directed participants to a different webpage that was not linked to the questionnaire, in order to protect employee identities. This information was only used to distribute the findings summary and was destroyed at the completion of the study.

## **Measures**

Variables were measured on both 5-point and 7-point Likert scales. Full versions of the scales are provided in Appendix C. In accordance with the copyright agreement, the full

set of items for transformational leadership (MLQ) has not been included. In an attempt to limit the effects of common method variance, each of the scales below were separated onto different pages in the survey (Spector, 2006).

### **Mental Well-being**

To measure participants eudaimonic well-being the shortened version of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) (Tennant et al., 2007) was used. The scale consists of 7 items. Participants were asked to indicate how positively or negatively they had been feeling within the last two weeks. Sample items are “I’ve been dealing with problems well” and “I’ve been feeling relaxed”. Items were measured on a 5-point Likert scale with *1 = none of the time, 2 = rarely, 3 = some of the time, 4 = often, 5 = all of the time*. This scale has been used widely and shows good internal consistency, Cronbach’s  $\alpha = .84$  (Brown, Tennant, Tennant, Platt, Parkinson & Weich, 2009).

### **Servant Leadership**

The Servant Leadership Scale (SL-28) (Liden et al., 2008) was used to measure employee perceptions of servant leadership displayed by their manager. The scale consisted of 28 items and includes seven sub dimensions with four items each. The seven dimensions include; emotional healing (EH), giving back to the community (GB), helping subordinates grow and succeed (HG), conceptual skills (CS), empowerment (EP), putting subordinates first (PF) and behaving ethically (BE). Participants were asked how strongly they agreed or disagreed with each item. Sample items include “My leader puts my best interests ahead of his/her own” and “I would seek help from my leader if I had a personal problem”. Items were measured on a 7-point Likert Scale with *1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = Neither agree nor disagree, 5 = somewhat agree, 6 = agree, 7 = somewhat agree*. The SL-28 has been used widely in previous research and is the most common

measure of servant leadership to date, displaying good internal consistency for each of the seven dimensions with reported Cronbach's between  $\alpha = .86-.94$  respectively (Liden et al., 2011)

### **Transformational Leadership**

To measure transformational leadership The Multifactor Leadership Questionnaire (Bass & Avolio, 1995) was used. The scale consists of 20 items and captures the four sub-dimensions of transformational leadership which include; inspirational motivation, idealised influence, intellectual stimulation and individual consideration. Previous research has found the four sub-dimensions to be highly correlated, suggesting that the dimensions cannot be considered as independent factors (Knippenberg & Sitken, 2013). However, more recent research has found that they can (Djourova et al., 2019). Therefore, the current study will first check the underlying factor structure of the MLQ to determine if an analysis for the dimensions can proceed. Participants were asked to rate how often their manager engages in the described behaviours. Sample items include "Talks optimistically about the future" and "Spends time teaching and coaching". Items were measured on a 5-point Likert scale with *0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, 4 = frequently if not always*. The MLQ is the most widely used and validated measure of transformational leadership. It displays good internal consistency  $\alpha = .90$  (Munir et al., 2011).

### **Qualitative Data**

At the end of the survey an additional question was included to allow participants to elaborate on any of their thoughts. The question read as follows;

"Is there anything your manager or the organisation does that you believe contributes most to your mental well-being at work?"

Participants were given the option to skip this question and end the survey if they did not wish to answer.

## **Results**

All data were statistically analysed using IBM SPSS (version 25). Exploratory factor analysis were conducted to determine the underlying factor structure of each scale. Principle axis factoring with direct oblimin rotation were used to determine the dimensionality of the SL-28 (servant leadership), the MLQ (transformational leadership and WEMWS (mental well-being). The scale used to measure servant leadership (SL-28) was examined first. Examination revealed four factors with eigen values above 1. The SL-28 contains seven separate dimensions, however, in the current study several dimensions loaded onto the same factor. Emotional healing (EH), helping employees grow (HG) and putting others first (PF) loaded onto the same factor. Behaving ethically (BE) and conceptual skills (CS) also loaded onto the same factor. Empowering (EP) and giving back to the community (GB) remained as individual dimensions on separate factors. It was observed that 27 of the 28 items reached the recommended factor loading of .4 (Costello & Osbourne, 2005). Items CS4 “My manager can tell if something is going wrong” reached a factor loading of -.24. The decision was made to exclude the item, as this did not reach the recommended level. A principle axis factoring was then repeated to confirm the final structure of the scale, this solution is displayed in Appendix D. Although analysis of the SL-28 did not reveal seven factors as expected, the four factor structure was retained for further analysis due to similarity with previous research. The original development and validation of the SL-28 tested several models with regards to the dimensionality of the scale (Linden et al., 2008). While the seven dimension model was determined to be the best fit, a three factor model with a similar factor structure to the current study (with the exception of empowering which loaded onto the same factor as EH, HG & PF) was also tested and was determined to be the second best fit (Linden et al., 2008).

An exploratory factor analysis was then conducted to test the factor structure of the MLQ. The results of this analysis are displayed in Appendix E. A two factor structure was obtained, with all 20 items loaded above .4 onto either factor. While more recent research has identified the four sub dimensions as independent factors, in the current study, the four dimensions only loaded onto two factors. As the two factors were highly correlated at  $r = .68$ , a decision was made to combine the factors into one composite variable. Finally, a factor analysis was conducted for the WEMWS measuring mental well-being. A single factor structure was expected. All items loaded suitably onto one factor. The results for the factor analyses can be seen in appendix F.

Descriptive statistics, reliability coefficients, and correlations for all eight variables and measures can be seen in Table 2. As seen below, Cronbach's alpha ( $\alpha$ ) for all scales were above the minimum recommended .70, indicating acceptable reliability (Cronbach, 1951).

Table 2.  
*Summary of Descriptives statistics, Correlation matrix and internal consistency values*

Variable	M	SD	1	2	3	4	5	6	7
1 MW	3.60	.53	(.83)						
2 TL Overall	3.31	.83	.35*	(.96)					
3 SL Overall	4.67	1.14	.34*	.83*	(.97)				
4 Servant Leadership EH, HG & PF	4.34	1.36	.29*	.80*	.95*	(.96)			
5 Servant Leadership BE & CS	5.51	1.18	.37*	.78*	.87*	.75*	(.92)		
6 Servant Leadership Empowering	5.17	1.44	.29*	.50*	.73*	.58*	.59*	(.92)	
7 Servant leadership Giving Back to the community	3.67	1.33	.18*	.59*	.73*	.63*	.55*	.47*	(.90)

Note. \* Significant at  $p < .001$ . Cronbach alpha values ( $\alpha$ ) are displayed on the diagonal.

Participants recorded moderate levels of mental well-being with a low standard deviation, indicating minimal spread. Transformational leadership and servant leadership BE

& CS were the highest reported leadership styles perceived by participants (relative to scale differences). Giving back to the community was the lowest reported leadership style.

Correlational analyses revealed significant positive correlations between mental well-being and overall transformational leadership and overall servant leadership ( $r = .35, p < .01$ ;  $r = .34, p < .01$ , respectively). Each of the servant leadership dimensions were significantly positively correlated with mental well-being. Servant leadership BE & CS displayed the highest correlation with mental well-being ( $r = .37, p < .001$ ). Giving back to the community displayed with weakest correlation with mental well-being.

To examine whether there were any significant differences in mental well-being and perceived servant and transformational leadership between males and females, independent samples t-tests were conducted. The findings showed no significant differences across genders. The current study did not obtain a diverse enough sample to examine any differences between ethnic groups or age groups.

## **Quantitative Data**

### **Research questions one, two and three**

Table 3 illustrates the results of the regression analysis predicting mental well-being. Servant leadership BE & CS was significantly positively associated with mental well-being ( $B = .09, p < .05$ ). Transformational leadership and servant leadership EH, HG & PF were significantly positively associated with mental well-being at a less strict p-value criterion of .10. However, an assessment of multi-collinearity revealed high VIF and tolerance levels for transformational leadership, servant leadership EH, HG & PF and servant leadership BE & CS. All three VIF's were above the recommended value of 3, indicating that the predictor variables are very highly correlated (Bowerman & O'Connell, 1990). The high VIF levels

indicate that the results of the regression analysis may not be reliable due to the conceptual similarity of the variables.

Table 3.

*Results of regression analysis testing transformational leadership and servant leadership dimensions. Unstandardized coefficients and standard errors (SE).*

Variable	Mental Well-being			
	B	SE	<i>p</i>	VIF
Constant	2.59	.18	.00	
TL Overall	.13	.07	.06	3.68
Servent Leadership EH, HG & PF	-.023	.04	.60	3.66
Servant Leadership BE & CS	<b>.09</b>	.05	<b>.04*</b>	3.29
Servant Leadership Empowering	.05	.03	.07	1.70
Servant Leadership Giving Back to the community	-.03	.03	.37	1.73

Note N=266\* indicates significance at  $p < .05$ .

Given the high VIF levels, transformational leadership was omitted from the regression to determine whether the dimensions of servant leadership were significantly associated with mental well-being, without taking transformational leadership into account. The regression analysis reveals moderate VIF levels, however none exceeded the recommended value (Bowerman & O'Connell, 1990). The results from the second regression are displayed in table 4. Servant Leadership BE & CS was again the only dimension to be positively associated with employee mental well-being ( $B = .14$ ,  $p < .01$ ). No other dimensions of servant leadership were significantly associated with mental well-being.



Table 4.

*Results of regression analysis testing only servant leadership dimensions. Unstandardized coefficients and standard errors (SE).*

Variable	Mental Well-being			
	B	SE	<i>p</i>	VIF
Constant	2.64	.18	.00	
Servant Leadership EH, HG & PF	-.01	.04	.72	2.91
Servant Leadership BE & CS	<b>.14</b>	.04	<b>.00*</b>	2.61
Servant Leadership Empowering	.05	.03	.10	1.69
Servant Leadership Giving Back to the community	-.02	.03	.53	1.69

Note N=266\* indicates significance at  $p < .01$ .

In an attempt to answer research question 2, transformational leadership and servant leadership overall were run in separate regression analyses with mental well-being as the outcome variable. Transformational leadership was significantly positively associated with mental well-being ( $B = .23, p < .001$ ). Servant leadership was significantly positively associated with mental well-being ( $B = .16, p < .001$ ). The results of the two regression analyses cannot be compared to test whether the differences are statistically significant as they have been analysed in two separate regressions. However, upon ocular inspection it appears that transformational leadership is a stronger predictor of employee mental well-being given its larger effect size. Servant leadership confidence intervals [.108, .215]. Transformational leadership confidence intervals [.152, .299].

#### Research Question 4

Leader mental well-being and employee mental well-being were then analysed to answer research questions 4. At the beginning of the questionnaire, participants were asked to indicate whether or not they were a group/team leader. Those who identified as being a group/team leader were separated into one group and were labelled as the 'leader'

group. Those who did not were separated into another and were labelled as the ‘employee’ group. This was done in order to establish the predictor and outcome variable. The mental well-being of the ‘leaders’ was established as the predictor variable. The mental well-being of the ‘employees’ was established as the outcome variable. The analysis was conducted at a group level, and employees were not paired with their leaders. Leader mental well-being and employee mental well-being were submitted to a regression analysis, with employee mental well-being the outcome variable. Leader mental well-being was positively but not significantly associated with non-leader mental well-being ( $B = .16, p = .15$ ).

### **Qualitative Data**

Towards the end of the survey participants were asked to identify anything that their immediate manager and/or their organisation does that they believe contributes most to their mental well-being. Of the 266 participants, 157 left a response. These responses ranged from single sentences to a comprehensive explanation of multiple factors. Participants provided examples of things done by both their managers and the organisation that affect their mental well-being both positively and negatively. In total 115 of the responses pertained to positive factors and 42 pertained to negative factors. These responses were analysed manually and sorted into overall themes and sub themes. Of the positive responses, the most common theme was flexibility. This included an emphasis on flexible working hours promoted by both the organisation and individual managers, availability of leave, encouragement to take leave when needed and the ability to work from home regularly where practical. The negative responses were separated into two themes; managers lack of skill or ability and unethical/inappropriate behaviour. The latter examples ranged from severe and deliberate bullying of junior staff to ignoring employees and undermining their efforts. A more comprehensive breakdown of the responses is provided in table 5.

Table 5.  
*Breakdown of qualitative responses, both positive and negative*

Theme	Sub theme	% of responses
Positive Factors		
Flexibility/ Work-life balance	Generous leave available	37%
	Encouragement to take leave when needed (by both manager and organisation).	
	Flexible working hours	
	Ability to work from home	
Managerial support	Cares about them as a person and not just as a piece of the company	26%
	Takes time to listen to them when they have concerns	
	Support with workload is provided when outside issues arise.	
Autonomy	Allows them to work independently	18%
	Do not need to ask for permission to perform tasks that are within the scope of their role and knowledge	
	Has trust in their ability to do their job.	
Development	Encouragment by manager and organisation to complete developmental programmes.	19%
	Generous time available to complete said programmes	
	Genuine interest in their personal and career development.	
Negative		
Detrimental behaviour	Moderate to severe bullying by management staff towards younger/junior employees	40%
	Undermining employees in both formal and informal situations.	
	Ignoring conflicts within their teams	
	Taking credit for employees work.	

Inability	Managers lacking the ability to effectively lead a team of employees.	50%
	Managers not having an adequate skill set to deal with the issues that arise as a leader prior to being promoted into the role.	
Lack of organisation support	Lack of follow through when issues raised about situations or specific people.	10%
	Inconsistency between the values/intentions espoused and the practical implementation.	

---

## Discussion

The current study aimed to expand the literature on the link between leadership and employee mental well-being by comparing two leadership styles and their association to employee eudaimonic well-being. This was done in an attempt to provide insight for organisations as to how to best promote the mental well-being of their employees through the lens of leadership. Transformational leadership, the most dominant form of leadership in well-being literature was examined alongside servant leadership, a relatively unexplored form of leadership. This study was conducted in an exploratory manner, proposing four research questions. Given the lack of research on eudaimonic well-being, research question one sought to explore whether transformational leadership and servant leadership were positively associated with employee eudaimonic well-being. Research question two sought to examine which leadership style is most strongly associated with employee eudaimonic well-being. Research question three sought to explore whether individual dimensions of both leadership styles were positively associated with employee eudaimonic well-being. Finally, research question four sought to explore if leader eudaimonic well-being is positively associated with employee eudaimonic well-being. Results found support for question one and partial support

for questions two and three. Findings pertaining to each research question are discussed below in further detail.

### **Overall findings**

Research question one was supported, with both transformational and servant leadership being significantly positively associated with employee eudaimonic well-being. This is consistent with past research demonstrating a positive relationship between both leadership styles and hedonic forms of well-being, mainly job satisfaction (Donia et al., 2016; Arnold, 2017; Long et al., 2014). Despite no previous research examining the link with eudaimonic well-being, the findings are in line with the assumption that both styles are positively related to employees positive psychological health.

Research question two was partially supported, with transformational leadership appearing to be a stronger predictor of employee eudaimonic well-being than servant leadership. However, due to issues of multicollinearity, this question could not be fully tested by including both types of leadership in the same regression analysis. The findings indicate that both transformational and servant leadership are highly similar. When predictor variables are highly correlated this can cause issues with the reliability of the regression estimates (Morrow-Howell, 1994). In this case, servant and transformational leadership were not conceptually distinct enough to reliably determine which style was most strongly associated with employee well-being, when run in the same analysis. This is both consistent and inconsistent with previous findings. Servant and transformational leadership have been found to overlap in many areas and to correlated with each other (Lamond & Humphreys, 2005; Linden et al., 2008). However, Linden et al. (2008) found that each dimension within servant leadership were not too highly correleated to transformational leadership to render the

construct redundant. Servant leadership was also found to explain additional variance to transformational when predicting several employee outcomes, not including well-being.

Research question three was also partially supported. The dimensions *conceptual skills* and *behaving ethically* were the only dimensions to be positively associated with employee eudaimonic well-being. No other dimensions within servant leadership displayed any association to employee well-being. This indicates that the dimensions within servant leadership that concern individual characteristics of leaders were more predictive of employee eudaimonic well-being rather than the ways in which leaders behave towards their followers. Unfortunately, the dimensions within transformational leadership could not be individually examined as they did not load onto four distinct factors, but rather two highly correlated factors.

No support was found for research question four. Leader eudaimonic well-being was not significantly positively associated with employee eudaimonic well-being. The lack of a significant association between leader eudaimonic well-being and employee eudaimonic well-being does not align with previous research suggesting that leader psychological health is related to employee psychological health (Skakon et al., 2010).

### **Theoretical and practical implications**

The current study has several theoretical and practical implications. First it revealed the link between transformational and servant leadership to employee eudaimonic well-being. This is the first known study to examine both these styles and their link to eudaimonic well-being, as well as examine the individual dimensions within each style. Despite a large body of research examining the affects of leadership (mainly transformational) on employee well-being (Arnold, 2017), whether transformational and servant leadership related to employee eudaimonic well-being remains poorly understood.

One theoretical implication the current research has is that transformational leadership appears to be influential in promoting eudaimonic well-being. It adds to an extant body of research that suggests transformational leadership is the most effective style for increasing employee well-being (Arnold, 2017). These findings indicate that this may be true for eudaimonic well-being rather than just hedonic well-being. It also suggests that transformational leadership may be a more effective style in promoting eudaimonic well-being than servant leadership. Servant and transformational leadership were both positively associated with employee well-being. However, a breakdown of the dimensions within servant leadership suggests that the most unique dimensions of servant leadership may not be as effective as originally assumed. Several of the servant leadership dimensions that are considered to be the more conceptually unique of the style, were not positively associated with employee well-being. Giving back to the community, putting others first and emotional healing do not conceptually overlap with transformational leadership. None of these dimensions were found to be significantly associated with employee well-being. Of the dimensions that were associated with well-being (conceptual skills and behaving ethically) only one does not overlap with transformational. Ethical behaviour is not a core aspect or dimension of transformational leadership. This does indicate potential value in leadership styles beyond transformational. However, there are separate styles dedicated to this one dimension of servant leadership, which indicates that servant leadership may have less value than expected with regards to promoting eudaimonic well-being.

Another implication is that transformational and servant leadership appear to be very similar to each other. The high correlation between the two styles indicate that they may not be very conceptually distinct. It has been well established that both styles overlap with each other to a certain degree (Stone et al., 2004). However, the current findings suggest that this similarity may be higher than expected, particularly when predicting eudaimonic well-being.

This calls into question whether servant leadership contributes additional value beyond transformational leadership, or if the core aspects of servant leadership can be found within transformational leadership. It is difficult to determine which style is more important in promoting eudaimonic well-being when they cannot be analysed together. This may suggest that more research is needed into the differences between servant and transformational leadership in order to determine whether or not servant leadership is redundant. It also appears that the proposed four dimensions of transformational leadership are not empirically distinct from one another. The current study failed to find a four factor dimensional structure of transformational leadership. The four dimensions only loaded onto two factors. This is consistent with previous research highlighting the invalidity of the most commonly used measurement tool for transformational leadership (Knippenberg, 2013). Without a measure that can reliably capture the four dimensions within transformational leadership theory, it is difficult to determine whether those dimensions are valid. Further research is needed to determine whether the current theoretical model of transformational leadership is most appropriate moving forward.

Finally, the study also implies that the eudaimonic well-being of leaders does not directly impact the eudaimonic well-being of employees. It has been established that the negative well-being of leaders can affect the negative well-being of followers (Skakon et al., 2010). For example, if one's leader is experiencing stress or burnout, this will directly influence their own stress and job burnout (Skakon et al., 2010). The current findings suggest that this direct relationship may not exist for positive eudaimonic well-being. It may be the case that simply being mentally well as a leader is not enough to directly influence the eudaimonic well-being of followers. There has been research to suggest that the mental well-being of leaders affects their behaviour towards employees (Kaluza et al., 2019). When leaders experience high mental well-being they are more likely to display positive forms of



leadership, as opposed to destructive forms (Kaluza et al., 2019). It may be the case that leader eudaimonic well-being is a mediational variable. Leader well-being may mediate the relationship between leadership style and employee well-being, as mentally well leaders may be more likely to behave in ways that increase/promote employee well-being. Future research would be needed to test this assumption.

The studies findings also provide practical value for organisations. The increased focus on employee well-being in research has resulted in organisations implementing practices aimed at improving and promoting well-being alongside other employee outcomes. For example, the participating organisation has spent the last several years dedicating significant resources to a variety of developmental programmes and policies with the aim of fostering the well-being both physical and mental for their employees. The current study provides further evidence of the positive role that leadership has in this pursuit.

The participating organisation has tailored their leadership development programmes to align with the model of transformational leadership. This had been done with the intention that it will help to improve multiple employee outcomes, including mental well-being. The results of this study indicate that their current strategy is not in need of significant modification. Transformational leadership continues to be the most appropriate model of leadership to be utilised in leadership development. However, the study also provides evidence that incorporation of ethical behaviour training into those programmes may be of value. The dimensions associated with well-being in the current study, were ones predominantly centered around the attributes of the leader as opposed to how leaders behave towards their followers. It may also be of value to incorporate more material that focuses on building the individual characteristics of leaders.

## Limitations

The findings of the present research must also be considered along with its methodological limitations. One of these limitations is the sole reliance on self-report data, which can increase the risk of common method variance (Kline et al., 2000). Common method variance results from using the same method to measure different constructs and can produce variance that is specific to the measurement tool rather than the constructs themselves (Siemsen et al., 2010; Schaller et al., 2015). This can create a bias when interpreting the relationship between variables, as it may inflate or deflate them (Siemsen et al., 2010). Common method variance can be reduced by reducing the association of the variables and increasing the time difference between the measurement of each variable (Podsakoff et al., 2012). However, these solutions can be difficult to implement when using a wide scale questionnaire. In the current study, the scales were all presented on different pages in the current questionnaire in an attempt to mitigate any potential bias (Spector, 2006).

The use of self-report data can also open up issues of social desirability bias. Self-report measurements allow participants the opportunity to respond with answers they think are socially desirable, rather than what they truly believe or how they feel (Krumpal, 2011). This can result in the creation of artificial relationships and the elimination of true relationships (van de Mortel, 2008). The current study aimed to limit this by stressing anonymity and confidentiality of responding. Despite the limitations associated with self-report measurements they are a highly effective tool to gain insight to individuals feelings and perspectives (Podsakoff et al., 2003). It is also one of the only viable methods of measuring individuals mental well-being, as this information is difficult to infer from a third party. As the participants in the current study were reporting on their own mental well-being and perceptions of their leader's behaviour, it was determined that self-report was the most appropriate method to use.

The cross-sectional design of the study is another limitation as it cannot make conclusions about causality. When data is collected at only one time it is difficult if not impossible to make a causal inference (Levin, 2006). The direction of the relationship between the outcome and predictor variables cannot be confirmed. It may be the case that the mental well-being of employees affects their perceptions of the supervisor's leadership style, rather than leadership style affecting employee mental well-being. The cross-sectional design also only provides a snapshot in time of what is taking place with employees and their leaders. It may be the case that the time of the snapshot may not be the most representative of what is truly occurring within the organisation. Despite these limitations it was determined that a cross-sectional design was the most practical choice in order to ensure the study reached its needed sample size. Collecting data at multiple time points risks lowering the overall sample size as participants may choose not participate in each collection (Levin, 2006). Future research may utilise multiple time points to help infer the direction of the relationships and to increase temporal distance, decreasing the risk of common method variance.

Another limitation is that the study did not pair employees with their leaders when analysing the link between either parties eudaimonic well-being. The relationship between leader and employee eudaimonic well-being was analysed by taking the mental well-being levels of all those who identified as leaders and predicting the mental well-being of all those who did not identify as leaders. Employees were not paired with their supervisors, so it is difficult to ascertain whether the results provide an accurate representation of the dynamic between employees and their supervisors. The study would have benefited from pairing participants responses. However, it was determined that pairing employees to their supervisors may have discouraged participation from fear of a loss of anonymity. Therefore, this method was not selected in order to ensure the intended sample size was reached.

Finally, the high correlation between the transformational leadership dimensions was a limitation. The dimensions only loaded onto two factors, as opposed to four and were very highly correlated. It may have been the case the individual dimensions within the model may have been more strongly associated with employee well-being than others. As the dimensions could not be distinguished from one another, this could not be analysed. As such, research question three was not able to be explored fully.

### **Suggestions for future research**

The current study has provided evidence that transformational leadership is positively linked to employee eudaimonic well-being. However, it has not provided insight into what underlying psychological mechanisms allow this to occur. At present, how transformational leadership affects both hedonic and eudaimonic well-being is poorly understood (Inceoglu et al., 2017). Further research is needed to determine how transformational leadership is related to eudaimonic well-being. As stated previously, the current literature has relied heavily on performance based models to understand how leadership affects well-being (Inceoglu et al., 2017). It may be the case that these models are not appropriate or representative of the underlying ways that leadership influences well-being, particularly eudaimonic. It is important to understand exactly how and why this relationship is occurring, in order to help increase the benefits of transformational leadership. It may also benefit future practice to further research whether certain aspects of transformational leadership are more effective than others. It has already been acknowledged that the current proposed dimensional structure of transformational leadership may be not valid. However, future research should still explore whether there is something particular about transformational leadership that allows it to be more influential in promoting eudaimonic well-being. This could provide more practical information for organisations who are wanting to invest in leadership for the promotion of well-being.

Future research should also examine the association between servant, transformational leadership and eudaimonic well-being in multiple organisations. It is important to note that the current research utilised only one organisation. The participating organisations primary line of work is scientific research, with the majority of the sample being highly qualified scientists. It may not be surprising then that ethical behaviour was one of the only servant leadership dimensions to be associated with well-being. As a research organisation, ethical standards in working practice are very high. This may have resulted in employees desiring a high standard ethical behaviour from their leaders both with their work and interactions. It could also be the case, that the associations between servant and transformational leadership with well-being are specific to this organisation. Previous research has highlighted that servant leadership is not always received in the same way by everyone (Dierendonck et al., 2014; Lamond & Humphreys, 2005; Smith et al. 2004). As a leadership style it takes a more passive approach to leading than transformational (Dierendonck et al., 2014; Stone et al., 2004). Research has indicated that followers can often associate this behaviour with a lack of leader effectiveness in certain contexts (Long et al, 2004; Dierendonck et al., 2014). Servant leaders take a back seat to their followers and focus on serving as opposed to leading and inspiring. This can result in some people viewing servant leadership unfavourably (Dierendonck et al., 2014). Future research could examine what potential factors may influence this perception of servant leaders. In particular, whether the context of the organisation has any impact on how they are perceived.

Finally, future research should aim to conduct longitudinal analyses of both transformational and servant leadership to help determine whether a causal relationship exists and what in direction it occurs. This will help provide more practical information for organisations to be incorporated into leadership development programmes and inform organisational policies.

## **Conclusion**

With a growing mental health crisis, organisations and researchers alike have been looking to understand the most effective ways to promote and foster employee mental well-being. The current study aimed to provide insight into the role that leadership has on positive employee mental well-being. Servant and transformational leadership were compared to determine whether one style was more influential than the other. In addition, it aimed to explore the role of leader mental well-being on employee mental well-being. The findings highlighted the importance of leadership in influencing eudaimonic well-being. It has indicated that transformational leadership is a more important style than servant leadership in promoting eudaimonic well-being. It also found that leader eudaimonic well-being is not related to employee eudaimonic well-being. These findings have significant implications for how organisations approach leadership development for the purpose of increasing employee well-being. The results suggest that organisations should continue to focus on transformational leadership as a core model, with the incorporation of ethical behaviour. Several recommendations for future research are also provided.

## References

- Arnold, K. A. (2017). Transformational leadership and employee psychological well-being A review and directions for future research. *Journal of occupational health psychology, 22*(3), 381.
- Arnold, K. A., Turner, N., Barling, J., Kelloway, E. K., & McKee, M. C. (2007). Transformational leadership and psychological well-being: the mediating role of meaningful work. *Journal of occupational health psychology, 12*(3), 193.
- Asher, I., Dowell, T., Turner, N., Ashton, T., Suri, J., & St, W. (2018). Government Inquiry into Mental Health and Addictions.
- Avolio, B. J., & Bass, B. M. (1995). Individual consideration viewed at multiple levels of analysis: A multi-level framework for examining the diffusion of transformational leadership. *The leadership quarterly, 6*(2), 199-218.
- Bacha, E. (2014). The relationship between transformational leadership, task performance and job characteristics. *Journal of Management Development, 33*(4), 410-420.
- Banks, G. C., McCauley, K. D., Gardner, W. L., & Guler, C. E. (2016). A meta-analytic review of authentic and transformational leadership: A test for redundancy. *The Leadership Quarterly, 27*(4), 634-652.
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human relations, 61*(8), 1139-1160.
- Bass, B. M., Waldman, D. A., Avolio, B. J., & Bebb, M. (1987). Transformational leadership and the falling dominoes effect. *Group & Organization Studies, 12*(1), 73-87.
- Bass, B., & Avolio, B. (1995). *MLQ multifactor leadership questionnaire*. Mind Garden.
- Black, G. L. (2010). Correlational analysis of servant leadership and school climate. *Journal of Catholic Education, 13*(4), 437-466.

- Bono, J. E., Foldes, H. J., Vinson, G., & Muros, J. P. (2007). Workplace emotions: The role of supervision and leadership. *Journal of Applied Psychology, 92*, 1357–1367.  
<http://dx.doi.org/10.1037/0021-9010.92.5.1357>
- Bowerman, B. L., & O'connell, R. T. (1990). *Linear statistical models: An applied approach*. Brooks/Cole.
- Braun, S., Peus, C., Weisweiler, S., & Frey, D. (2013). Transformational leadership, job satisfaction, and team performance: A multilevel mediation model of trust. *The Leadership Quarterly, 24*(1), 270-283.
- Burns, J. M. (1978). *Leadership*. New York, NY: Harper & Row.
- Choi, B., Kurowski, A., Bond, M., Baker, D., Clays, E., De Bacquer, D., & Punnett, L. (2012). Occupation-differential construct validity of the Job Content Questionnaire (JCQ) psychological job demands scale with physical job demands items: a mixed methods research. *Ergonomics, 55*(4), 425-439.
- Choi, S. L., Goh, C. F., Adam, M. B. H., & Tan, O. K. (2016). Transformational leadership, empowerment, and job satisfaction: the mediating role of employee empowerment. *Human resources for health, 14*(1), 73.
- Choudhary, A. I., Akhtar, S. A., & Zaheer, A. (2013). Impact of transformational and servant leadership on organizational performance: A comparative analysis. *Journal of business ethics, 116*(2), 433-440.
- Coetzer, M. F., Bussin, M. H., & Geldenhuys, M. (2017). Servant leadership and work-related well-being in a construction company. *SA Journal of Industrial Psychology, 43*(1), 1-10.
- Costello, A. B., & Osborne, J. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical assessment, research, and evaluation, 10*(1), 7.



- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(3), 297-334.
- Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 9(1), 1–11
- Di Fabio, A. (2017). Positive Healthy Organizations: Promoting well-being, meaningfulness, and sustainability in organizations. *Frontiers in psychology*, 8, 1938.
- Di Fabio, A., & Peiró, J. (2018). Human Capital Sustainability Leadership to promote sustainable development and healthy organizations: A new scale. *Sustainability*, 10(7), 2413.
- Djourova, N. P., Rodríguez Molina, I., Tordera Santamatilde, N., & Abate, G. (2019). Self-Efficacy and Resilience: Mediating Mechanisms in the Relationship Between the Transformational Leadership Dimensions and Well-Being. *Journal of Leadership & Organizational Studies*, 1548051819849002.
- Donia, M. B., Raja, U., Panaccio, A., & Wang, Z. (2016). Servant leadership and employee outcomes: The moderating role of subordinates' motives. *European Journal of Work and Organizational Psychology*, 25(5), 722-734.
- Ehrhart, M. G. (2004). Leadership and procedural justice climate as antecedents of unit-level organizational citizenship behavior. *Personnel psychology*, 57(1), 61-94.
- Farrington, S. M., & Lillah, R. (2019). Servant leadership and job satisfaction within private healthcare practices. *Leadership in Health Services*, 32(1), 148-168.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G\* Power 3.1: Tests for correlation and regression analyses. *Behavior research methods*, 41(4), 1149-1160.

- Fernet, C., Trépanier, S. G., Austin, S., Gagné, M., & Forest, J. (2015). Transformational leadership and optimal functioning at work: On the mediating role of employees' perceived job characteristics and motivation. *Work & Stress*, 29(1), 11-31.
- Giolito, V., & Van Dierendonck, D. (2015). Servant leadership: influence on financial business-unit performance and employee's well-being. In *Academy of Management Proceedings* (Vol. 2015, No. 1, p. 18378). Briarcliff Manor, NY 10510: Academy of Management.
- Glasø, L., & Einarsen, S. (2006). Experienced affects in leader–subordinate relationships. *Scandinavian Journal of Management*, 22(1), 49-73.
- Grant, A. M., Christianson, M. K., & Price, R. H. (2007). Happiness, health, or relationships? Managerial practices and employee well-being tradeoffs. *Academy of management perspectives*, 21(3), 51-63.
- Grawitch, M. J., & Ballard, D. W. (2016). *The psychologically healthy workplace: Building a win-win environment for organizations and employees*. American Psychological Association.
- Green, M. T., Rodriguez, R. A., Wheeler, C. A., & Baggerly-Hinojosa, B. (2016). Servant leadership: A quantitative review of instruments and related findings. *Servant Leadership: Theory & Practice*, 2(2), 5.
- Greenleaf, R. K. (1991). Servant leadership. 1977.
- Gregory Stone, A., Russell, R. F., & Patterson, K. (2004). Transformational versus servant leadership: A difference in leader focus. *Leadership & Organization Development Journal*, 25(4), 349-361.
- Guerci, M., Hauff, S., & Gilardi, S. (2019). High performance work practices and their associations with health, happiness and relational well-being: are there any tradeoffs?. *The International Journal of Human Resource Management*, 1-31.

- Haddon, J. (2018). The impact of employees' well-being on performance in the workplace. *Strategic HR Review*, 17(2), 72-75.
- Henry, J. (2005). 25 The healthy organization. *Research companion to organizational health psychology*, 382.
- Hildenbrand, K., Sacramento, C. A., & Binnewies, C. (2018). Transformational leadership and burnout: The role of thriving and followers' openness to experience. *Journal of occupational health psychology*, 23(1), 31.
- Holstad, T. J., Korek, S., Rigotti, T., & Mohr, G. (2014). The relation between transformational leadership and follower emotional strain: The moderating role of professional ambition. *Leadership*, 10(3), 269-288.
- Inceoglu, I., Thomas, G., Chu, C., Plans, D., & Gerbasi, A. (2018). Leadership behavior and employee well-being: An integrated review and a future research agenda. *The Leadership Quarterly*, 29(1), 179-202.
- Jacobs, C., Pfaff, H., Lehner, B., Driller, E., Nitzsche, A., Stieler-Lorenz, B., ... & Jung, J. (2013). The influence of transformational leadership on employee well-being: Results from a survey of companies in the information and communication technology sector in Germany. *Journal of occupational and environmental medicine*, 55(7), 772-778.
- Jit, R., Sharma, C. S., & Kawatra, M. (2017). Healing a broken spirit: Role of servant leadership. *Vikalpa*, 42(2), 80-94.
- Joshanloo, M. (2016). Revisiting the empirical distinction between hedonic and eudaimonic aspects of well-being using exploratory structural equation modeling. *Journal of Happiness Studies*, 17(5), 2023-2036.
- Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: a meta-analytic test of their relative validity. *Journal of applied psychology*, 89(5), 755.

- Kaluza, A. J., Boer, D., Buengeler, C., & van Dick, R. (2019). Leadership behaviour and leader self-reported well-being: A review, integration and meta-analytic examination. *Work & Stress*, 1-23.
- Kelloway, E. K., & Barling, J. (2010). Leadership development as an intervention in occupational health psychology. *Work & Stress*, 24(3), 260-279.
- Kelloway, E. K., & Day, A. (2005). Building healthy workplaces: Where we need to be. *Canadian Journal of Behavioural Science*, 37(4), 309-312. doi: 10.1037/h0087265.
- Kelloway, E. K., Sivanathan, N., Francis, L., & Barling, J. (2005). Poor leadership. *Handbook of work stress*, 89-112.
- Keyes, C. L., & Annas, J. (2009). Feeling good and functioning well: Distinctive concepts in ancient philosophy and contemporary science. *The Journal of Positive Psychology*, 4(3), 197-201.
- Kincaid, M. (2012). Building corporate social responsibility through servant-leadership. *International Journal of Leadership Studies*, 7(2), 151-171.
- Kline, T. J., Sulsky, L. M., & Rever-Moriyama, S. D. (2000). Common method variance and specification errors: A practical approach to detection. *The Journal of psychology*, 134(4), 401-421.
- Krumpal, I. (2013). Determinants of social desirability bias in sensitive surveys: a literature review. *Quality & Quantity*, 47(4), 2025-2047.
- Kumar, S. (2018). Servant Leadership: A Review of Literature. *PACIFIC BUSINESS REVIEW INTERNATIONAL*, 11(1), 43-50.
- Kuoppala, J., Lamminpää, A., Liira, J., & Vainio, H. (2008). Leadership, job well-being, and health effects—a systematic review and a meta-analysis. *Journal of occupational and environmental medicine*, 50(8), 904-915.

- Lamond, D., & Humphreys, J. H. (2005). Contextual implications for transformational and servant leadership. *Management decision*.
- Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-based dentistry*, 7(1), 24-25.
- Liden, R. C., Panaccio, A., Meuser, J. D., Hu, J., & Wayne, S. (2014). 17 Servant leadership: antecedents, processes, and outcomes. *The Oxford handbook of leadership and organizations*, 357-379.
- Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multi-level assessment. *The leadership quarterly*, 19(2), 161-177.
- Liu, J., Siu, O. L., & Shi, K. (2010). Transformational leadership and employee well-being: The mediating role of trust in the leader and self-efficacy. *Applied Psychology*, 59(3), 454-479.
- Long, C. S., Yusof, W. M. M., Kowang, T. O., & Heng, L. H. (2014). The impact of transformational leadership style on job satisfaction. *World Applied Sciences Journal*, 29(1), 117-124.
- Maula-Bakhsh, R., & Raziq, A. (2016). Development of Conceptual Link between Servant Leadership & Employee Subjective Well-being. *Journal of Applied and Emerging Sciences*, 4(2), pp157-168.
- Maula-Bakhsh, R., & Raziq, A. (2018). Relationship between Servant Leadership and Subjective Well-Being: Evidence from Manufacturing and Services based SMEs in Pakistan. *Journal of Management Sciences*, 5(1), 62-85.
- Montano, D., Reeske, A., Franke, F., & Hüffmeier, J. (2017). Leadership, followers' mental health and job performance in organizations: A comprehensive meta-analysis from an occupational health perspective. *Journal of Organizational Behavior*, 38(3), 327-350.

- Munir, F., Nielsen, K., Garde, A. H., Albertsen, K., & Carneiro, I. G. (2012). Mediating the effects of work–life conflict between transformational leadership and health-care workers' job satisfaction and psychological wellbeing. *Journal of nursing management*, 20(4), 512-521
- Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: what can be done?. *Assessment & evaluation in higher education*, 33(3), 301-314.
- Offermann, L. R., & Hellmann, P. S. (1996). Leadership behavior and subordinate stress: A 360° view. *Journal of occupational health psychology*, 1(4), 382.
- Ozyilmaz, A., & Cicek, S. S. (2015). How does servant leadership affect employee attitudes, behaviors, and psychological climates in a for-profit organizational context?. *Journal of Management & Organization*, 21(3), 263-290.
- Page, D., & Wong, T. P. (2000). A conceptual framework for measuring servant leadership. *The human factor in shaping the course of history and development*, 69-110.
- Panaccio, A., Donia, M., Saint-Michel, S., & Liden, R. C. (2015). 16. Servant leadership and wellbeing. *Flourishing in life, work and careers: Individual wellbeing and career experiences*, 334.
- Parolini, J., Patterson, K., & Winston, B. (2009). Distinguishing between transformational and servant leadership. *Leadership & Organization Development Journal*, 30(3), 274-291
- Pinck, A. S., & Sonnentag, S. (2018). Leader mindfulness and employee well-being: the mediating role of transformational leadership. *Mindfulness*, 9(3), 884-896.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, 88(5), 879.

- Podsakoff, P.M., MacKenzie, S.B., & Podsakoff, N.P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review Psychology*, 63, 539-569
- Price, M. S., & Weiss, M. R. (2000). Relationships among coach burnout, coach behaviors, and athletes' psychological responses. *The Sport Psychologist*, 14(4), 391-409.
- Raya, R. P., & Panneerselvam, S. (2013). The healthy organization construct: A review and research agenda. *Indian journal of occupational and environmental medicine*, 17(3), 89–93. doi:10.4103/0019-5278.130835
- Rivkin, W., Diestel, S., & Schmidt, K. H. (2014). The positive relationship between servant leadership and employees' psychological health: A multi-method approach. *German Journal of Human Resource Management*, 28(1-2), 52-72.
- Schaller, T.K., Patil, A., & Malhotra, N.K. (2015). Alternative techniques for assessing common method variance: An analysis of the Theory of Planned Behavior research. *Organizational Research Methods*, 18, 177-206.
- Sheehan, K. B., & Hoy, M. G. (1997). E-mail surveys: response patterns, process and potential. *Proceedings of the 1997 Conference of the American Academy of Advertisers*.
- Sheehan, K. B. (2001). E-mail survey response rates: A review. *Journal of computer-mediated communication*, 6(2), JCMC621.
- Siemens, E., Roth, A., & Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational Research Methods*, 13, 456-476.
- Skakon, J., Nielsen, K., Borg, V., & Guzman, J. (2010). Are leaders' well-being, behaviours and style associated with the affective well-being of their employees? A systematic review of three decades of research. *Work & stress*, 24(2), 107-139.

- Smith, B. N., Montagno, R. V., & Kuzmenko, T. N. (2004). Transformational and servant leadership: Content and contextual comparisons. *Journal of Leadership & Organizational Studies*, 10(4), 80-91.
- Spector, P. E. (2006). Method variance in organizational research: truth or urban legend?. *Organizational research methods*, 9(2), 221-232.
- Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., & Weich, S. (2009). Internal construct validity of the Warwick-Edinburgh mental well-being scale (WEMWBS): a Rasch analysis using data from the Scottish health education population survey. *Health and quality of life outcomes*, 7(1), 15.
- Sumer, N., Karanci, A. N., Berument, S. K., & Gunes, H. (2005). Personal resources, coping self-efficacy, and quake exposure as predictors of psychological distress following the 1999 earthquake in Turkey. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies*, 18(4), 331-342.
- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., ... & Stewart-Brown, S. (2007). The Warwick-Edinburgh mental well-being scale (WEMWBS): development and UK validation. *Health and Quality of life Outcomes*, 5(1), 63.
- Van de Mortel, T. F. (2008). Faking it: social desirability response bias in self-report research. *Australian Journal of Advanced Nursing, The*, 25(4), 40.
- Van Dierendonck, D., & Nuijten, I. (2011). The servant leadership survey: Development and validation of a multidimensional measure. *Journal of business and psychology*, 26(3), 249-267.
- Van Dierendonck, D., Haynes, C., Borrill, C., & Stride, C. (2004). Leadership behavior and subordinate well-being. *Journal of occupational health psychology*, 9(2), 165.



- Van Knippenberg, D., & Sitkin, S. B. (2013). A critical assessment of charismatic—transformational leadership research: Back to the drawing board?. *The Academy of Management Annals*, 7(1), 1-60.
- Vealey, R. S., Armstrong, L., Comar, W., & Greenleaf, C. A. (1998). Influence of perceived coaching behaviors on burnout and competitive anxiety in female college athletes. *Journal of Applied Sport Psychology*, 10(2), 297-318.
- Wang, G., Oh, I. S., Courtright, S. H., & Colbert, A. E. (2011). Transformational leadership and performance across criteria and levels: A meta-analytic review of 25 years of research. *Group & organization management*, 36(2), 223-270.
- Warr, P. (2003). 20 Well-Being and the Workplace. *Well-being: Foundations of hedonic psychology*, 392.
- Warr, P. (2013). How to think about and measure psychological well-being. In R. R. Sinclair, M. Wang, L. E. Tetrick, R. R. Sinclair, M. Wang & L. E. Tetrick (Eds.), *Research methods in occupational health psychology: Measurement, design, and data analysis* (pp. 76-90). New York, NY: Routledge.
- Wegge, J., Shemla, M., & Haslam, S. A. (2014). Leader behavior as a determinant of health at work: Specification and evidence of five key pathways. *German Journal of Human Resource Management*, 28(1-2), 6-23.
- Wu, A. M. S., Tang, C. K. K., & Kwok, T. C. Y. (2004). Self-efficacy, health locus of control, and psychological distress in elderly Chinese women with chronic illnesses. *Aging & mental health*, 8(1), 21-28.
- Yasir, M., & Mohamad, N. A. (2016). Ethics and morality: Comparing ethical leadership with servant, authentic and transformational leadership styles. *International Review of Management and Marketing*, 6(4S), 310-316.

## **Appendices**

**Appendix A**  
**Invitation Email for Survey Participants**

Kia Ora,

My Name is Rosie Armour and I am a Masters student at the University of Canterbury. I am currently conducting research into the effects of different leadership styles on employee mental well-being at work. I would very much appreciate it if you would take part in the research by completing this survey. It should take no longer than 15 minutes to complete. You must be over the age of 18 and in full time employment. Your participation will be anonymously and you are free to exit the survey at any time. If you wish to take part in the study please select the link below which will take you to the survey online. Thank you for your participation!

Kind Regards,

Rosie

[www.qualtrics/leadershipsurvey.co.nz](http://www.qualtrics/leadershipsurvey.co.nz)

## Appendix B

### Information Sheet for Survey Participants

Department of Psychology  
 Telephone: +64 21 2476743  
 Email: [rosemary.armour@pg.canterbury.ac.nz](mailto:rosemary.armour@pg.canterbury.ac.nz)  
 Date: when approval given for study  
 HEC Ref: [Enter when approval given for your study]



### Different leader behaviours and their effect on mental well-being at work

#### Information Sheet for survey participants

My name is Rosie Armour and I am an Applied Psychology Masters student from the University of Canterbury. I am conducting research into the effects of different leadership behaviours on mental well-being in the workplace.

Thank you for your interest in taking part in this study. If you choose to take part in this study your involvement will include completing a survey about your work experience, which should take approximately 10-15 minutes.

Please read the following information sheet carefully. You will not be penalised by your organisation for not choosing to take part. Your organisation will not be aware of the identities of who participates. This survey may be completed during work hours and on work computers.

Participation is voluntary and you have the right to withdraw at any stage without penalty, you can do this by exiting the survey at any stage by closing the browser. However, as we are not collecting any identifying information linked to the survey, once you have submitted your results at the conclusion of the survey it will not be possible to identify your response and we will therefore not be able to remove your data.

If at any point during this survey you experience any feelings of distress, please know there are places you can go for support including:

**EPA**  
0800 327 669

**Lifeline**  
0800 543 354

**General Practitioner**  
<https://www.cdhb.health.nz/your-health/how-to-find-and-enrol-waita-doctor/>

The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation: your identity cannot be made public. To ensure anonymity, all responses will be recorded without the collection of any identifying information. Data will be securely stored on the university servers on password protected computers. Only me and my supervisors will have access to the raw data. After five years, all raw data will be destroyed. A thesis is a public document and will be available through the UCLibrary.

If you wish to receive a summary of the findings of the study, a link will be provided at the end of the survey which will take you to a separate page where you may leave your email address. This page will not be linked to the questionnaire to preserve anonymity.

The project is being carried out as a requirement for the completion of a Masters in Applied Psychology by Rosie Armour under the supervision of Katharina Naswall who can be contacted at [Katharina.naswall@canterbury.ac.nz](mailto:Katharina.naswall@canterbury.ac.nz). Katharina will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch ([human-ethics@canterbury.ac.nz](mailto:human-ethics@canterbury.ac.nz))

## Appendix C

### Full Questionnaire

#### Mental Well-being Scale

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., ... & Stewart-Brown, S. (2007). The Warwick-Edinburgh mental well-being scale (WEMWBS): development and UK validation. *Health and Quality of life Outcomes*, 5(1), 63.

*“Below are some statements about feeling and thoughts.  
Please tick the box that best describes your experience of each over the last 2 weeks.”*

None of the time	Rarely	Some of the time	Often	All of the time
------------------	--------	------------------	-------	-----------------

- |            |  |
|------------|--|
| <b>MW1</b> | I've been feeling optimistic about the future      |
| <b>MW2</b> | I've been feeling useful                           |
| <b>MW3</b> | I've been feeling relaxed                          |
| <b>MW4</b> | I've been dealing with problems well               |
| <b>MW5</b> | I've been thinking clearly                         |
| <b>MW6</b> | I've been feeling close to other people            |
| <b>MW7</b> | I've been able to make up my own mind about things |

### Servant Leadership Scale

Liden, R. C., Wayne, S. J., Zhao, H., & Henderson, D. (2008). Servant leadership: Development of a multidimensional measure and multi-level assessment. *The leadership quarterly*, 19(2), 161-177.

*“Please rate on the scale provided how much you agree with the following statements”*

Strongly disagree	Disagree	Somewhat disagree	Neither Agree nor disagree	Somewhat agree	Agree	Strongly agree
-------------------	----------	-------------------	----------------------------	----------------	-------	----------------

I would seek help from my manager if I had a personal problem.

My manager cares about my personal well-being.

My manager takes time to talk to me on a personal level.

My manager can recognize when I'm down without asking me.

My manager emphasizes the importance of giving back to the community.

My manager is always interested in helping people in our community.

My manager is involved in community activities.

I am encouraged by my manager to volunteer in the community.

My manager can tell if something is going wrong.

My manager is able to effectively think through complex problems.

My manager has a thorough understanding of our organization and its goals.

My manager can solve work problems with new or creative ideas.

My manager gives me the responsibility to make important decisions about my job.

My manager encourages me to handle important work decisions on my own.

My manager gives me the freedom to handle difficult situations in the way that I feel is best.

When I have to make an important decision at work, I do not have to consult my manager first.

My manager makes my career development a priority.

My manager is interested in making sure that I achieve my career goals.

My manager provides me with work experiences that enable me to develop new skills.

My manager wants to know about my career goals.

My manager seems to care more about my success than his/her own.

My manager puts my best interests ahead of his/her own.

My manager sacrifices his/her own interests to meet my needs.

My manager does what she/he can do to make my job easier.

My manager holds high ethical standards.

My manager is always honest.

My manager would not compromise ethical principles in order to achieve success.

My manager values honesty more than profits.

**Appendix D**  
**Final Exploratory Factor Analysis SL-28**

Table 6.  
*Factor Analysis $\alpha$  for items measuring Servant Leadership Final*

		Factor 1	Factor 2	Factor 3	Factor 4	h <sup>2</sup>
EH1	I would seek help from my manager if I had a personal problem	<b>.61</b>	.01	.25	.12	.48
EH2	My manager cares about my personal well-being	<b>.59</b>	-.01	.077	-.29	.74
EH3	My manager takes time to talk to me on a personal level.	<b>.73</b>	.01	.08	-.01	.60
EH4	My manager can recognize when I'm down without asking me.	<b>.75</b>	-.18	.12	-.06	.60
GB1	My manager emphasizes the importance of giving back to the community	.14	.07	<b>.74</b>	-.01	.72
GB2	My manager is always interested in helping people in the community	-.02	.08	<b>.83</b>	-.11	.82
GB3	My manager is involved in community activities	-.00	.04	<b>.74</b>	-.15	.69
GB4	I am encouraged by my manager to volunteer in the community	.17	.04	<b>.60</b>	-.01	.51
CS1	My manager is able to think through complex problems	.16	.09	-.12	<b>-.62</b>	.58
CS2	My manager has a thorough understanding of our organization and its goals	.175	.03	-.04	<b>-.55</b>	.46
CS3	My manager can help solve work problems with new or creative ideas	.28	.09	-.11	<b>-.49</b>	.53
EP1	My manager gives me the responsibility to make important decisions about my job	.12	<b>.87</b>	-.04	-.00	.86
EP2	My manager encourages me to handle important work decision on my own	.03	<b>.89</b>	.00	-.03	.86
EP3	My manager gives me the freedom to handle difficult situation in the way I feel is best	.03	<b>.85</b>	.04	-.08	.86



EP4	When I have to make an important decision at work, I don't not have to consult my manager first.	-.08	<b>.72</b>	.07	.02	.49
HG1	My manager makes my career development a priority	<b>.84</b>	.17	-.06	.03	.81
HG2	My manager is interested in making sure that I achieve my career goals	<b>.82</b>	.16	-.09	.08	.84
HG3	My manager provides me with work experiences that enable me to develop new skills	<b>.78</b>	.02	-.12	-.09	.64
HG4	My manager wants to know about my career goals	<b>.76</b>	.11	-.09	-.08	.70
PF1	My manager seems to care more about my success than his/her own	<b>.57</b>	.10	.22	-.11	.72
PF2	My manager puts my best interest ahead of his/her own	<b>.56</b>	.08	.21	-.15	.72
PF3	My manager sacrifices his/her own interests to meet my needs	<b>.63</b>	.07	.17	-.04	.63
PF4	My manager does what she/he can do to make my job easier	<b>.58</b>	.04	.11	-.18	.64
BE1	My manager holds high ethical standards	.07	.04	.12	<b>-.70</b>	.69
BE2	My manager is always honest	-.09	.02	.12	<b>-.91</b>	.84
BE3	My manager would not compromise ethical principles in order to achieve success	-.05	.02	.09	<b>-.86</b>	.78
BE4	My manager values honesty more than profits	-.03	.01	.05	<b>-.83</b>	.71
Eigenvalue		14.54	1.75	1.39	1.14	
Percent of variance (after extraction)		52.73%	6.47%	5.14%	4.24%	

<sup>a</sup>Principle axis factor analysis, oblimin rotation

**Appendix E**  
**Final Exploratory Factor Analysis MLQ**

Table 7.

*Factor Analysis $\alpha$  for items measuring Transformational leadership Final*

	Factor 1	Factor 2	h <sup>2</sup>
TL1	.27	<b>-.44</b>	.44
TL2	.12	<b>-.62</b>	.49
TL3	-.18	<b>-.88</b>	.59
TL4	-.13	<b>-.92</b>	.69
TL5	.10	<b>-.79</b>	.75
TL6	.21	<b>-.63</b>	.62
TL7	.23	<b>-.61</b>	.63
TL8	.17	<b>-.68</b>	.67
TL9	<b>.57</b>	.01	.42
TL10	<b>.76</b>	.00	.58
TL11	<b>.45</b>	-.30	.49
TL12	<b>.79</b>	.00	.62
TL13	<b>.89</b>	.06	.71

TL14	<b>.79</b>	-.07	.72
TL15	<b>-.79</b>	-.02	.65
TL16	<b>.78</b>	.01	.61
TL17	<b>.59</b>	-.23	.59
TL18	<b>.55</b>	-.05	.35
TL19	<b>.40</b>	<b>-.46</b>	.64
TL20	.26	<b>-.57</b>	.61
<hr/>			
Eigenvalue	10.63	1.17	
Percent of variance (after extraction)	53.14%	5.86%	
<hr/>			

<sup>a</sup>Principle axis factor analysis, oblimin rotation

**Appendix F**  
**Final Exploratory Factor Analysis WEMWS**

Table 8.  
*Factor Analysis<sup>a</sup> for items measuring Mental Well-being Final*

		Factor 1	h <sup>2</sup>
MW1	I've been feeling optimistic about the future	<b>.62</b>	.39
MW2	I've been feeling useful	<b>.61</b>	.37
MW3	I've been feeling relaxed	<b>.59</b>	.46
MW4	I've been dealing with problems well	<b>.67</b>	.51
MW5	I've been thinking clearly	<b>.72</b>	.42
MW6	I've been feeling close to other people	<b>.65</b>	.35
MW7	I've been able to make up my own mind about	<b>.59</b>	.36
Eigenvalue		3.45	
Percent of variance (after extraction)		40.94%	

<sup>a</sup>Principle axis factor analysis, oblimin rotation