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THE RELATIONSHIP BETWEEN MINDFULNESS AND SPECIFIC WORKPLACE OUTCOMES

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COMPULSORY DECLARATION:

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

Signed by candidate

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To my family and friends, thank you for your enduring love and support.

ABSTRACT

Over the past two decades, interest in the concept of mindfulness has exploded. Though many companies have started to implement mindfulness-based programmes, research on mindfulness in a workplace context is still in its infancy. This study therefore attempted to increase the evidence base for the utility of mindfulness in bringing about positive workplace outcomes. By empirically testing aspects of a mindfulness framework developed by Good et al. (2016), this study sought to determine the relationship between mindfulness and key workplace outcomes in the performance, relationship and wellbeing domain. White collar employees in South African organisations responded to a self-report survey (N = 211). Correlation analyses revealed that mindfulness was not statistically significantly correlated to either task performance or interpersonal organisational citizenship behaviours. In the relationship domain, preferred styles for handling conflict at the workplace were examined. As expected, mindfulness was significantly and positively related to only problem solving and negatively to most other conflict management styles. With regards to the wellbeing domain, work-life balance was examined as a mediator in the relationship between mindfulness and subjective wellbeing in the form of high positive affect, low negative affect, and high job satisfaction. Work-life balance was a partial mediator in the relationship between mindfulness and both negative affect and job satisfaction; yet it was not a significant mediator for positive affect. Lastly, theoretical and managerial implications as well as suggestions for future research and limitations associated with this study were discussed.

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INTRODUCTION

The nature of work and employment have rapidly changed over the last four decades and will continue to do so as we move further into the 21st century. This change has been driven by intensifying levels of competition in the marketplace, the rapid developments in communication and information technology and the increased use thereof as well as heightened forces of globalisation (Rothman & Cilliers, 2007). These alterations in the nature of work have resulted in a demise of manufacturing and other middle-class jobs associated with bureaucratic employment contracts that were characterised by an exchange of labour and loyalty for security (Barley, Bechky, & Milliken, 2017). Furthermore, alternative working patterns have increased in popularity. For example, there has been a growth of contingent work. This term covers a variety of workers such as independent contractors who are self-employed, temporary workers, and more recently those that work in the so-called "gig economy" which means that employees find their jobs through online platforms and may never personally meet their employer (Barley et al., 2017). There has also been an increase in part-time work, flexitime employment, telecommuting, job-sharing as well as compressed workweeks (Kelliher & Anderson, 2010). These changes have further led to the creation of the so-called 24-hour economy, work intensification, and declines in job security through downsizing and out-sourcing (Kelliher & Anderson, 2010).

These changes have contributed to increases in emotional and mental demands placed on employees, consequently resulting in heightened levels of personal stress, depression, and anxiety (Kelliher & Anderson, 2010). The South African Depression and Anxiety Group (SADAG, 2016), for example, indicated that as many as one in three South African workers have been diagnosed with depression or suffer from other mental health issues. Despite the fact that such a condition costs the affected dearly, a loss of earnings due to depression and anxiety disorders is estimated at R54121 per affected adult per year (Stander, Bergh, Miller-Janson, De Beer, & Korb, 2016). Most South African companies have an above-average overall absenteeism rate of ranging between 3.5% to 6% leading to a high number of productive days lost annually due to sickness (Stander et al., 2016). Simultaneously, increased competition, and declines in job security have led to heightened production pressure for both employers and employees (Boxall & Macky, 2014). Yet, despite labour intensification, companies have oftentimes been incapable of turning this effort into improved workplace productivity (Boxall & Macky, 2014). In South Africa, for example, the labour productivity growth data has averaged -.16% from March 2009 to June 2018 (CEIC,

2018). Furthermore, resulting from leaner production environments, greater interdependencies amongst employees and heightened use of team-based work in organisations, many employees experience more conflict at work than in past decades (Oore, Leiter, & LeBlanc, 2015).

As a response to these challenges, many Fortune500 companies such as Google, Ford, Apple, and General Mills have started offering mindfulness training to improve employee wellbeing in highly pressurised work environments (Sutcliff, Vogus, & Dane, 2016). Such programmes include mindfulness meditation as a core component and further include a diverse set of objectives such as stress reduction, employee wellbeing, improving workplace relationships or increasing job performance (Reb & Choi, 2014). The popularity of mindfulness has exponentially grown in recent years and it has now become a multibillion dollar business in many developed countries (Wieczner, 2016). The academic interest in mindfulness has equally burgeoned. A keyword search on PsyhINFO for the term "mindfulness" illustrates this increased interest quiet vividly: in 2001 it showed 26 results, in 2007 there were 231 new results and in 2018 this number increased to 11885. Furthermore, in 2010 the peer-reviewed journal *Mindfulness* was created and in October 2015 the *American Psychologist* published a special issue solely dedicated to the topic.

So what exactly is mindfulness and is its hype justified? In its essence, it represents an ancient piece of advice, namely "Live in the present.". In scientific terms, mindfulness has been defined as the "receptive attention to and awareness of present moment events and experiences" (Brown, Ryan, & Creswell, 2007, p.212). It entails that one pays attention to all internal and external present-moment experiences such as one's physical sensations, affective states, thoughts, and perceptions. Yet, this is done in a non-judgmental and non-reactive manner so that a unique state of consciousness is developed whereby an individual is able to simply notice sensory input without habitually evaluating, comparing, or ruminating about it (Brown et al., 2007). People differ in their dispositional level of mindfulness but mindfulness-based treatment interventions have shown to improve mean scores in self-reported mindfulness thus showing that it is amenable to change through training (Allen & Kiburz, 2012). Mindfulness meditation and informal mindfulness practices such as bringing mindfulness to one's everyday life (e.g. eating mindfully) represent the most prominent ways through which mindfulness can be heightened (Glomb, Duffy, Bono, & Yang, 2011).

However, while there has been an exponential increase in research demonstrating the effectiveness of mindfulness in enhancing psychological and physical health, these studies are primarily in a clinical setting (Chiesa & Serretti, 2009), and from fields such as social

psychology (e.g., Giluk, 2009), clinical and counselling psychology (e.g., Shapiro, Brown, & Biegel, 2007), as well as neuroscience (e.g., Siegel, 2007) and medicine (e.g., Ludwig & Kabat-Zinn, 2008) with limited attention by organisational scholars on mindfulness in the workplace (Dane & Brummel, 2014). For instance, mindfulness-based interventions have been utilized in the treatment of a variety of clinical disorders such as anxiety (Hofmann, Sawyer, Witt, & Oh, 2010), eating disorders (Tapper, Shaw, Ilsley, Hill, Bond, & Moore, 2009), or depression (Hofmann et al., 2010) to name a few. In addition, it has been found that mindfulness training improves certain markers of physical health: it reduces blood pressure and cortisol levels (Carson, Speca, Faris, & Patel, 2007) as well as increases telomerase activity (Jacobs et al., 2010). Mindfulness interventions have not only been utilised in treating disorders and improving physical health; it has been established that their salutary effects can be witnessed in enhancing the psychological wellbeing of healthy individuals as well (Hölzel et al., 2011). Mindfulness has been associated with reduced negative affect, rumination (Chiesa & Serretti, 2009), and burnout (Hülsheger, Alberts, Feinholdt, & Lang, 2012) alongside increasing the experience of positive emotions, purposefulness in life, and coping capabilities (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008). Moreover, trait mindfulness as well as mindfulness inductions and interventions have been found to enhance cognitive functioning (Jha, Krompinger, & Baimer, 2007; Ostafin & Kassman, 2012) by improving cognitive flexibility and executive functioning (Moore & Malinowski, 2009).

These research findings point towards the possibility that the beneficial effects of mindfulness could translate into a workplace context. As mentioned, the empirical research conducted in a workplace context is still its infancy (see Allen & Kiburz, 2012, Dane & Brummel, 2014; Hülsheger et al., 2013; Reb, Narayanana, & Chaturvedi, 2014). Yet, much of the published research remains at the conceptual stage suggesting theoretical frameworks of how mindfulness could promote key work outcomes by extensively relying on the findings that have accumulated in other fields (see Allen & Paddock, 2015; Dane, 2011; Glomb et al., 2011; Good et al., 2016; Hyland, Lee, & Mills, 2015; Reb & Choi, 2015; Sutcliff et al., 2016).

Given that many companies have started to invest in mindfulness-based programmes, it is of great importance to increase the evidence base for the utility of mindfulness in bringing about positive workplace outcomes. The present research thus seeks to contribute to the emerging body of empirical literature on mindfulness in the workplace by testing aspects of a mindfulness framework developed by Good et al. (2016) and published in the *Journal of Management.* The authors considered more than 4000 scientific research papers from a

variety of disciplines on the manifold aspects of mindfulness and on the basis of this developed an integrative framework relating mindfulness to key workplace outcomes. This integrative framework was chosen for this study because of its comprehensive conceptualisation of positive workplace outcomes. Good et al. (2016) suggested three categories of workplace outcomes: performance, relationships, and wellbeing. The present study therefore examines the relationship between mindfulness and the three mentioned types of positive workplace outcomes.

Research Question

To what extent is mindfulness related to the positive workplace outcomes of performance, relationships, and wellbeing?

Literature Review

Evolution of Mindfulness

This section introduces the concept of mindfulness by tracing its development from an early Buddhist concept to its practice in the contemporary workplace.

The origins of mindfulness. The concept of mindfulness is primarily known as an element of the Buddhist tradition (Chiesa, 2012, Quaglia, Brown, Lindsay, Creswell, & Goodman, 2015). Within the Dharma (the teachings of the Buddha) practices and principles are described that lead to insight and the overcoming of suffering (Bodhi, 2011). One such practice is mindfulness meditation, which brings about a certain versatile mental quality (mindfulness) (Bodhi, 2011). It is assumed that an individual's perception is limited by one's attention span, distorted by biases, expectations and assumptions, fragmented by distractions, and oftentimes controlled by one's emotional reactivity (Hyland et al., 2015). Mindfulness, in turn, enables an individual to see the world clearly without such manipulations and taint (Gunaratana, 2002). In the Buddhist tradition, a clear, focused, and stable mind is essential for effective mental training and purification that will ultimately lead to the end of human suffering that was created by self-delusion and ignorance (Bodhi, 1994).

In the manifold Buddhist scholarly writings, mindfulness is conceptualised in different ways and there is no one definitive meaning of mindfulness, nor a single

authoritative account that surpasses all others (Quaglia et al., 2015). The word mindfulness is derived from the Pali language word Sati, which first occurred in the Pali Canon, the oldest collection of Buddhist writings. The word Sati can take on different meanings such as "wakefulness of mind", "intentness of mind", or "lucidity of mind" (Davids & Stede, 1959, p. 672) as well as "to remember" (Bodhi, 2011, p. 20).

Despite the multiplicity of conceptualisations and meanings of the word mindfulness, Buddhist-informed scholarly accounts on the conceptions of mindfulness converge on three key features (Quaglia et al., 2015). First, they describe mindfulness as a clear-minded attention to, or awareness of, what is occurring in the present moment (Bodhi, 2011; Dreyfus, 2011; Quaglia et al., 2015). Second, whilst western definitions oftentimes stress the non-conceptual, non-discursive nature of mindfulness (see Bishop et al., 2004), this form only relates to its most basic level in the Buddhist sense. 'Right' or 'wise' mindfulness is broader and more lucid, and as such an awareness develops so does one's ability to comprehend the nature and qualities of the phenomena encountered. Mindfulness, thus, leads to comprehension, which allows insight and understanding of the mind and behaviour (Bodhi, 2011; Dreyfus, 2011; Quaglia et al., 2015). A third key feature that marks a difference between scientific/clinical and Buddhist understandings of mindfulness concerns the role of evaluation (Quaglia et al., 2015). 'Wise' or 'right' mindfulness includes the evaluation of mental qualities (e.g. as wholesome/unwholesome) and intended deeds. A mindful individual can judge these mental qualities and on the basis of this engages in purposeful action. The above illustrates that the Buddhist interpretations of mindfulness is value-laden whereby capacities of attention and discerning thought are brought together to regulate mental states as well as behaviour (Bodhi, 2011; Quaglia et al., 2015).

Mindfulness in contemporary psychology. Mindfulness has been introduced and secularised in the west primarily through the work of Jon Kabat-Zinn in 1979. He developed a programme called Mindfulness Based Stress Reduction (MBSR) at the University of Massachusetts Medical School that was originally designed to benefit patients suffering from chronic pain and illness (Hyland et al., 2015). The success of the MBSR programme has led to the development of other mindfulness-based programmes such as Mindfulness-Based Cognitive Therapy (Segal, Williams, & Teeasdale, 2002), Dialectical Behavior Therapy (Linehan, 1993a) and Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 1999). These mindfulness-based interventions (MBIs) are based on a general framework that spans over the course of eight weeks and include meditation and Hatha yoga training. Generally, MBIs consist of a weekly two-and-a-half-hour meeting, daily meditation time at

home (20 to 45 minutes), a six-hour class during week six, as well as bringing mindfulness to ordinary activities such as eating or walking (Carmody & Baer, 2009)

As the aforementioned illustrates, mindfulness training has been examined in the psychological literature as a therapeutic technique that can improve an individual's ability to experience mindful states more frequently. Mindfulness has also been defined as both a state and a trait (see Avey, Wernsig, & Luthans, 2008; Hülsheger et al., 2012). Empirical evidence supports both perspectives. Mindfulness has been found to be an inherent psychological state that varies from moment to moment within a person (i.e. a state) (Brown & Ryan, 2003) while Hülsheger et al. (2012) showed that the average frequency and duration of experiencing mindful states can also vary between individuals (i.e. trait). Certain individuals can have a high natural propensity of being mindful or engage in regular meditation practice to increase the frequency, length and intensity of such states (e.g. Siegel, 2010).

Despite the popularity of mindfulness in western psychological science, the literature reveals considerable discrepancies in the description of mindfulness on both operational and theoretical levels (Brown et al., 2007; Grossman & Van Dam, 2011; Quaglia et al., 2015). See Table 1 for the most prominent definitions from a review of the literature. One of the most widely known definitions has developed by Kabat-Zinn (1994), who described the construct as a type of non-judgmental and intentional attention. Another common definition stems from Bishop et al. (2004) who proposed that mindfulness consists of two-factors, namely the self-regulation of attention that is focused on the present moment, as well as a certain type of attitude, which includes acceptance, openness and curiosity.

In comparison to these conceptualisations, Brown and Ryan's (2003) definition focuses exclusively on the attentional aspect of mindfulness. This conceptualisation seems to be more in line with Buddhist descriptions of a 'basic' form of mindfulness (Quaglia et al., 2015). It has been argued by Quaglia and colleagues (2015) that attitudinal orientations such as non-judgment or openness are inherent in the type of receptive attention employed rather than representing a separate attitude. Furthermore, definitions that include non-judgment or acceptance components depart from original Buddhist accounts that explicitly state that mindfulness has a value-laden character by distinguishing between wholesome and unwholesome states of mind (Bodhi, 2011; Dreyfus, 2011). Such attitudes aid in the development of mindfulness by allowing people to disengage from habitual mental discourses that could inhibit sustained attention (Quaglia et al., 2015). It is for this reason that the present study employs the definition suggested by Brown et al. (2007, p. 212) that views mindfulness as "*a receptive attention to and awareness of present events and experience*".

Table 1

Prominent Definitions of Mindfulness in the Scientific Literature

Source	Definition
Kabat-Zinn (1994, p. 4)	"Paying attention in a particular way: on purpose, in the present moment, and non-judgmentally."
Bear (2003, p. 125)	"the nonjudgmental observation of the ongoing stream of internal and external stimuli as they arise"
Bishop et al. (2004, p. 232)	"A kind of nonelaborative, nonjudgmental, present-centred awareness in which each thought, feeling, or sensation that arises in the attentional field is acknowledged and accepted as it is."
Brown et al. (2007, p. 212, italics in original)	"*a receptive attention to and awareness of present events and experience*"

Measures of mindfulness. Given the considerable variations in conceptualisations of mindfulness in the scientific literature, it is not surprising that there are several measures of mindfulness (Brown et al., 2007; Keng, Robins, Smoski, Dagenbach, & Leary, 2013; Quaglia et al., 2015). To date eight self-report questionnaires have been developed to assess trait and state mindfulness. These measures differ greatly in content and factor structure and oftentimes correlate poorly with one another, indicating a clear need for conceptual agreement (Grossman, 2008). These measures range in complexity from one factor (Mindfulness Attention Awareness Scale (MAAS); Brown & Ryan, 2003) to five factors (Five Facet Mindfulness Questionnaire (FFMQ); Baer, Smith, Hopkins, Kreitemeyer, & Toney, 2006). Despite these variations, all of the measures focus on attention and awareness as either the central feature (MAAS) or include it amongst other components (FFMQ).

Conceptual divergences exist amongst the components included in scales with multiple factors. These differences have consequences for the manner in which mindfulness, its antecedents and outcomes are understood. As mentioned earlier certain measures (see FFMQ and Philadelphia Mindfulness Scale (PHLMS); Cardaciotto, Herbert, Forman, Moitra, & Farrow, 2008) include non-judgment as a factor, which aside from departing from Buddhist perspectives on mindfulness also raises further issues (Quaglia et al., 2015).

Specifically, it can lead to operational overlap with other constructs as acceptance/non-judgment can, for example, also be viewed as a form of emotion regulation strategy (see Aldao, Nolen-Hoeksema, & Schweizer, 2010). Furthermore, measures such as the FFMQ and the Kentucky Inventory of Mindfulness Skills (KIMS; Baer, Smith, & Allen, 2004) that include a 'describe' factor may conflate mindfulness skills with those consequences of practicing mindfulness that lead to the development of introspective skill, namely to be able to describe internal events (Quagila et al., 2015).

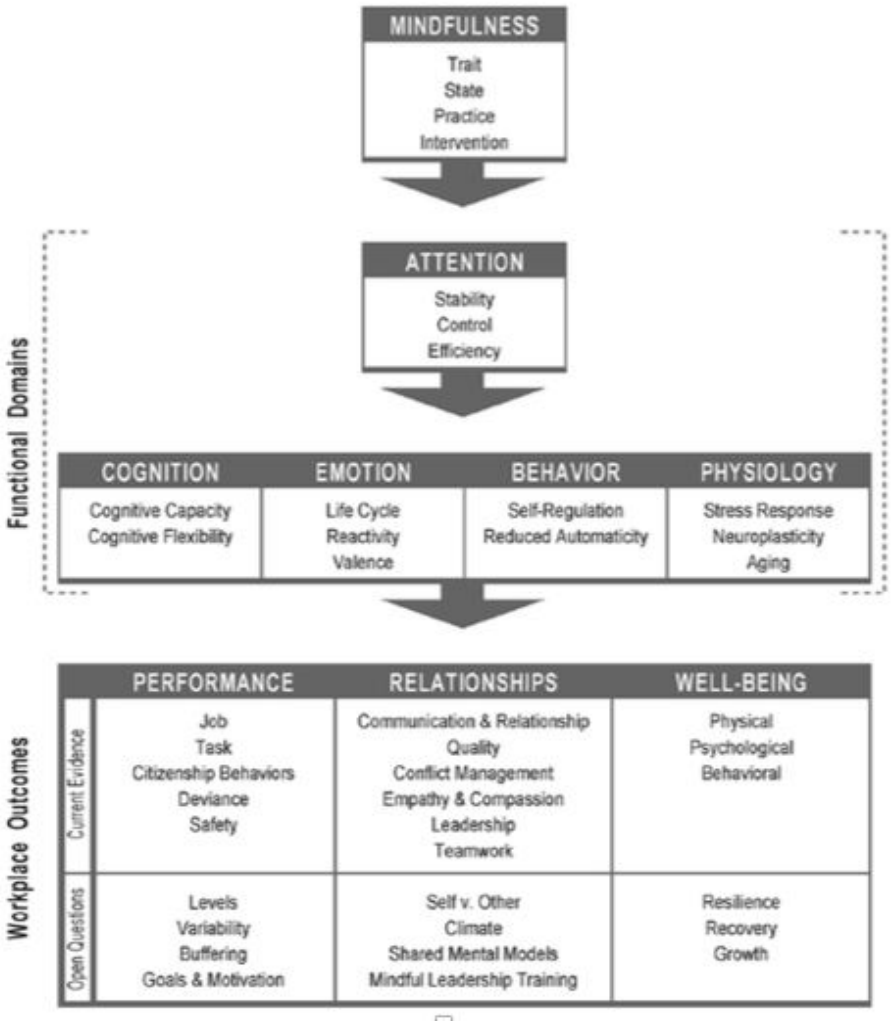
Due to the issues associated with many of the multi-factorial measures, the present research utilises the MAAS, which focuses solely on attention and awareness, in order to operationalise mindfulness. In addtion, it is the most frequently used measure in research that is focused on the workplace (see Hülsheger et al., 2012). The MAAS has also been shown to converge with probable and objective indicators of subjective experience, evidencing its validity (Brown et al., 2007). Mindfulness as assessed by the MAAS has, for example, been found to predict neural activation in brain areas that are consistent with our theoretical understanding of mindfulness and its effects (for a review see Quaglia et al., 2015). From a review of the divergences in conceptualisations concerning the meaning of mindfulness as well as the content and factor structure of measures indicates that further research is needed to reach a general agreement.

Theoretical Framework: Integrative Framework Relating Mindfulness to Workplace Outcomes

The section describes the theoretical framework that was chosen to guide the present research. This framework was developed by Good et al. (2016) and specifically tailored to the workplace context. It details the relationship between mindfulness and workplace outcomes (see Figure 1). Furthermore, it is based on Brown and Ryan's (2003) conceptualisation of mindfulness, which ascertains that mindfulness is fundamentally rooted in attention and awareness. Good et al. (2016) theorised that mindfulness affects human functioning primarily through its effects on attention by improving its three characteristics of stability, control, and efficiency. Better attention regulation, in turn, is theorized to be a prerequisite for other mechanisms to take place in the cognitive, emotional, behavioural, and physiological domains of functioning (Good et al., 2016). The following section expands on each of the primary mechanisms through which mindfulness enhances human functioning: attention, cognition, emotion, behaviour, and physiology.

Figure 1

Integrative Framework Relating Mindfulness to Key Workplace Outcomes



Attention. Mindfulness has been found to increase an individual's attention regulation ability (Hölzel et al., 2011) Specifically, it is linked to the three primary attention networks, namely alerting attention, orienting attention, and executive attention (Posner & Petersen, 1990; Raz & Buhle, 2006). Alerting attention refers to an individual's ability to achieve and maintain a vigilant or receptive state of preparedness to one's experience and occurs through the continuous monitoring and maintenance of sustained attention (Posner & Petersen, 1990). Mindfulness has been found to stabilize one's attention in the present moment (Smallwood & Schooler, 2015). Mac Lean and colleagues (2010) found that individuals who participated in a mindfulness retreat remained vigilant longer on visual tasks and these effects could still be observed three months after the retreat ended. The enhanced attentional stability associated

with dispositional mindfulness (Schmertz, Anderson, & Robins, 2008) or mindfulness training (Mrazek, Smallwood, & Schooler, 2012) may stem from reduced mind wandering given that a core feature of mindfulness is the ability to return to the present-moment as soon as the mind wanders (Mrazek et al., 2012).

Orienting attention refers to an individual's ability to direct and limit attention to a subset of probable inputs (Posner & Petersen, 1990). Enhanced performance in orienting attention has been found following an 8-week MBSR course (Jha et al., 2007) as well as in experienced mindfulness practitioners (average of 15 years) when compared to controls (van den Hurk, Giommi, Gielen, Speckens, & Barendregt, 2010). Mindfulness meditation seems to lead to a more flexible orienting network as meditators repeatedly engage, disengage, and move between different stimuli which initiates the orienting operation of attention (Jha et al., 2007; van den Hurk et al., 2010). This leads to a more receptive or 'open field' form of attention and, hence, orienting attention is enhanced through greater flexibility (van den Hurk et al., 2010).

Finally, and most importantly, mindfulness affects attentional control also referred to as conflict monitoring or executive attention (Hölzel et al., 2011), which entails the appropriate direction of attention in the face of competing demands (Posner & Petersen, 1990). The executive attention task of the Attention Network Test (Fan, McCandliss, Sommer, Raz, & Posner, 2002) specifically assesses this type of attentional network. In two studies (Jha et al., 2007; van den Hurk et al., 2010) it was established that experienced meditators showed better performance on this task than non-meditators, which was indicated by smaller error scores as well as decreased reaction times. Furthermore, Tang et al. (2007) demonstrated that even a short mindfulness intervention (five days) led to improvements on this test. Mindfulness leads to enhancements in executive control as it reduces habitual attention allocation and leads to decreases in attention allocation to distracting information (Good et al., 2016). Executive attention is especially important for effective behavioural regulation and self-control as it has been associated with planning and decision making, cognitive and emotion regulation, error monitoring, and the overcoming of habitual actions (Brown et al., 2007).

The enhancements in the three primary attention networks, furthermore, lead to increased efficiency resulting in the economical use of cognitive resources (Vago & Silbersweig, 2012). Cahn and Polich (2009) found that meditators utilized less attentional resources when processing distractions. Additionally, mindfulness meditation has been associated with decreased attentional blink effect (deficit in perception of a second target when presented rapidly after initial target), indicative of more effective resource allocation (Slagter et al.,

2007). In summary, mindfulness is linked to the three primary attention networks (alerting, orienting, executive attention) and enhancements in these lead to attentional efficiency. Better attention regulation, in turn, is theorized to be a prerequisite for other mechanisms to take place in the cognitive, emotional, behavioural, and physiological domains of functioning (Good et al., 2016).

Cognition. Improvements in attentional functions have been found to impact cognitive performance. According to the proposed framework of Good et al. (2016) mindfulness increases an individual's cognitive capacity and cognitive flexibility. Generally, one's cognitive capacity is seen as a relatively stable individual characteristic. However, working memory and fluid intelligence are aspects of cognitive capacity that are more malleable. Working memory serves as the link between attention and higher-order cognition by acting as a short-term buffer for processing as well as holding information (Baddeley, 1992). A number of studies have found that mindfulness-based interventions can enhance one's working memory capacity (e.g. Jha, Stanley, Kiyonga, Wong, & Gelfand, 2010; Zeidan, Johnson, Diamond, David, & Goolkasian, 2010) even when controlling for general intelligence (Ruocco & Direkoglu, 2013). Additionally, it has been established that brief (Tang et al., 2007) and long-term (Gard et al., 2014) mindfulness training affects fluid intelligence, which is an individual's ability to reason and solve novel problems based on patterns and relationships (Good et al., 2016).

Mindfulness is not only associated with enhanced cognitive capacity but also with cognitive flexibility (Good et al., 2016). Flexible cognition refers to the generation of novel perspectives as well as responses (Walsh, 1995). Mindfulness has been found to lead to enhanced creativity as well as divergent and convergent thinking (Colzato, Ozturk, & Hommel, 2012). Ostafin and Kassman (2012) reported that better insight problem solving has also been related to both trait mindfulness and mindfulness training. Participants of a brief mindfulness training searched for more novel perspectives when stuck on a problem than a control group, which was explained, in part, by greater attentional control (Ding et al., 2015).

Increased cognitive flexibility is also associated with the decreased use of automatic mental models (Glomb et al., 2011). Automatic mental processing arises from distinct sources such as previous experiences and entrenched mental models. This automaticity has adaptive benefit as it allows for quick information processing and responses. However, it also restricts an individual's experiences and perceptions of the present moment (Glomb et al., 2011). Mindfulness practices can disrupt this automaticity of thought patterns. By simply paying attention to one's thoughts, one can; firstly, more readily disengage from automatic

thought patterns and, secondly, detach from perceptual filtering that is driven by schemas and emotions from the past (Siegel, 2007). More mindful individuals are, therefore, able to consciously sense and shape their thoughts leading to greater cognitive flexibility (Siegel, 2010).

Emotion. Mindfulness also affects human functioning via its effects on emotions. Emotions result from evaluative reactions to certain stimuli that serve the purpose of catalysing behaviour (Frijda, 1988). Mindful attention affects the selection of stimuli for observation as well as changes how these are appraised, thereby, leading to alterations in downstream emotion regulation (Good et al., 2016). Good et al. (2016) suggested that mindfulness impact the lifecycle of emotions as well as their overall valence. It has been found that mindfulness shortens the lifecycle of emotions meaning that it aids in reducing the time to return to baseline after experiencing emotional arousal (Good et al., 2016). For example, Brown, Weinstein, and Creswell (2012) found that mindfulness decreased the time to recover from negative emotions after experiencing an emotional arousal such as a public speaking task.

Related to the shortened lifecycle of emotions is the reduced reactivity to emotional stimuli associated with mindfulness. In a study conducted by Creswell, Way, Eisenberger, and Lieberman (2007) participants were confronted with fear or anger inducing stimuli. It was found that those higher in trait mindfulness showed less threat-related neural activation (decreases in amygdala response) and increased activation in brain areas associated with cognitive control and attention.

Another way in which mindfulness affects emotion regulation is through its effect on emotional valence, which relates to the overall positivity or negativity of emotions (Good et al., 2016). Mindfulness has been associated with more positive and less negative emotional tone as indicated in a recent meta-analysis (Eberth & Sedlmeier, 2012). Good et al. (2016) suggested that this may be due to reduced rumination or ‘mental time travel’ that often leads to negative emotions, as attention is stabilized in the present moment.

Even though the positive effects of mindfulness on emotion regulation are well established, the underlying processes are less clear (Hölzel et al., 2011). Mindfulness seems to affect cognitive emotion regulation strategies, which can take on different forms such as reappraisal and extinction (Hölzel et al., 2011; Ochsner & Gross, 2005). With regards to reappraisal, which entails the reinterpretation of a stimulus, Garland, Gaylord, and Fredrickson (2011) showed that mindfulness led to the reconstruction of stressful events as meaningful, beneficial, or benign. However, there seems to be inconsistent findings for this

relationship as other literature has found reduced cognitive control associated with mindfulness, which is indicative of non-appraisal (Hölzel et al., 2011). The question is therefore whether mindfulness involves cognitive control or if it is rather characterized by its absence. Hölzel et al. (2011) proposed that this may have to do with an individual's level of proficiency in mindfulness. Beginners may initially require cognitive control processes to bring awareness to emotional responses to overcome habitual ways of responding. More proficient practitioners, in turn, may have automated a certain stance of acceptance toward their experience so that cognitive control efforts are no longer necessitated (Brefczynski-Lewis, Lutz, Schaefer, Levinson, & Davidson, 2007; Hölzel et al., 2011).

Another emotion regulation strategy associated with mindfulness is extinction. Whilst practicing mindfulness, people expose themselves to all that is present in their field of awareness: bodily sensations, emotional experiences, and external stimuli. The techniques used to observe these experiences encourage an attitude of acceptance and non-judgment, especially if the experience is cognitively or emotionally challenging (Brown et al., 2007). This allows individuals to be affected by their experience as opposed to engaging in internal reactivity. For example, by turning towards unpleasant emotions, many practitioners realize that these are passing sensations leading to a sense of safety or wellbeing (Hölzel et al., 2011). This non-reactivity results in the unlearning of previous connections and hence liberates an individual from habitual emotional reactions (Olendzki, 2010). In summary, mindfulness leads to a decreased lifecycle of emotions and affects emotional tone (Good et al, 2016), primarily through the emotion regulation strategies of reappraisal, non-appraisal, and extinction (Hölzel et al., 2011).

Behaviour. According to theories such as self-determination theory (Deci & Ryan, 1985) and control theory (Carver & Schlheier, 1982), bringing attention to one's current experience is seen as an important factor for effective behavioural regulation. Firstly, mindfulness leads to reduced automaticity by creating a mental gap between stimulus-response relationships (Brown et al., 2007; Glomb et al., 2011; Good et al., 2016). Automaticity allows individuals to engage in behaviours without being consciously aware of their operational details, which has adaptive benefits as cognitive capacity is oftentimes constrained (Bargh & Chartrand, 1999). However, this means that stimuli are seen through the filters of habits and prior conditioning, which can restrict an individual's experience (Glomb et al., 2011).

By bringing attention and awareness to automatic or habitual behaviours, mindfulness creates a mental gap that allows for the conscious regulation of behaviour (Good et al., 2016).

Barnes, Brown, Krusemark, Campbell, and Rogge (2007) found that dispositional mindfulness was linked to dispositional self-control, which is the ability to alter or override inner responses as well as the ability to discontinue acting upon undesired behaviours (Tangney, Baumeister, & Boone, 2004). The ability to refrain from automatic or habitual behaviours has also been demonstrated in research on mindfulness and addiction, whereby mindfulness, for example, aided in breaking the connection between craving and smoking cigarettes (Elwafi, Witkiewitz, Mallik, Thornhill, & Brewer, 2013).

Mindfulness does not only reduce self-control deficits but it also leads to behavioural regulation that optimizes wellbeing (Brown et al., 2007). Increased awareness of internal and external information provides individuals with a choice that is guided by their needs, values and feelings and which fit with the options and demands of the situation. This is afforded through the enhanced autonomous self-regulation associated with mindfulness leading to more volitional and congruent actions (Brown et al., 2007; Ryan & Deci, 2000). Levesque and Brown (2006), for instance, found that dispositional mindfulness led to increased autonomous motivation.

Physiology. According to the framework proposed by Good et al. (2016) mindfulness further affects an individual's physiology. Firstly, mindfulness creates enhanced body awareness, as individuals are encouraged to focus attention on internal sensory experiences (Hölzel et al., 2011). Glomb et al. (2011) proposed that bringing an attitude of acceptance and non-judgmental awareness to one's physiological state aids in promoting a more balanced regulation of physiological response systems (e.g. fight-flight, inhibition-activation systems). For example, mindfulness has been associated with dampened stress reactions and faster recovery to baseline levels after being exposed to cognitive and social threats (Brown et al., 2012). These effects can be explained through the increased awareness that facilitates the interpretation and responses to messages from the body (Glomb et al., 2011; Hölzel et al., 2011).

Secondly, mindfulness has been found to lead to alterations in the brain, called neuroplasticity. A meta-analysis conducted by Fox et al. (2014) showed that mindfulness training led to changes in brain areas linked to attention, memory, and emotion regulation. Thirdly, mindfulness has been shown to affect the aging process by slowing, stalling, and even reversing brain degeneration (Luders, Cherubin, & Kurth, 2015). Mindfulness thus affects physiology by leading to better regulation of physiological response systems, by leading to alterations in the brain and by affecting the aging process.

The Relationship between Mindfulness and Workplace Outcomes

Good et al.'s (2016) integrative framework remains at a theoretical level, therefore this study aims to apply their framework to test the relationship between mindfulness and selected workplace outcomes. According to Good et al. (2016), mindfulness improves attention, thereby enhancing an individual's cognition, emotion, behaviour, and physiology, which in turn will have a positive impact on the workplace outcomes (1) performance, (2) relationships and (3) wellbeing. Specifically, it will be discussed how mindfulness leads to enhancements in task performance and prosocial behaviours (performance domain), how it leads to better conflict management (relationship domain) and, finally, how it increases subjective wellbeing (wellbeing domain).

Mindfulness and Performance Outcomes

Good et al. (2016) identified a number of performance outcomes namely job, task, citizenship behaviours, deviance, and safety. One of the most practically and theoretically important outcomes in the workplace is job performance (Dane & Brummel, 2014). For this reason, this study focused on job performance, which includes task performance and contextual performance (Aguinis, 2009). Aguinis (2009) defined task performance as the "activities that transform raw materials into the goods and services that are produced by the organization" and contextual performance as "those behaviours that contribute to the organization's effectiveness by providing a good environment in which task performance can occur" (Aguinis, 2009, p.81). He added that an organisation's focus on contextual performance is becoming increasingly important as global competition necessitates increased levels of effort, customer service, and interpersonal cooperation from employees (Aguinis, 2009).

Mindfulness and task performance. Research on mindfulness and task performance is still in its infancy, yet accumulating evidence suggests a positive association between these two variables (Good et al., 2016). Dane and Brummel (2014) found that trait mindfulness was related to better job performance among restaurant servers while Reb, Narayanan, and Ho (2013) established that mindfulness was associated with better employee task performance, as rated by their supervisors. Mindfulness improves task performance by (1) improving task performance levels, (2) buffering workplace performance, and (3) improving goal-directed behaviours and motivation (Good et al., 2016).

Task performance levels. Firstly, mindfulness has been related to greater cognitive flexibility by decreasing the use of automatic, habitual mental models (Moore & Malinowski, 2009; Zeidan et al., 2010). In a similar vein, mindfulness has been associated with enhanced divergent and convergent thinking (Colzato, Oztruk, & Hommel, 2012) and better insight problem solving (Ostafin & Kassman). In the workplace, these findings may translate into the generation of more creative ideas and solutions (Reb & Choi, 2014). Secondly, mindfulness heightens meta-cognitive processing, which is the ability to be consciously aware of cognitive control processes (Fernandez-Duque, Baird, & Posner, 2000). Augmented meta-cognitive processing has been associated with an individual's capability to reduce the interference of bottom-up, task-irrelevant information. This form of cognitive control allows people to more readily focus on the task at hand, thereby increasing task performance (Zeidan et al., 2010). Thirdly, mindfulness has been linked to improved decision-making (Hammond, Keeney, & Raiffa, 2006) and negotiation ability (Reb & Narayanan, 2014). More mindful individuals can process more information and can see this information more clearly as mindfulness decreases biases in cognitive processing (Kiken & Shook, 2011).

Performance buffering. Today's workplaces are full of distractions and interruptions, which can have a negative effect on task performance and, ultimately, adversely impact organisational functioning (Jett & George, 2003). Distractions interfere with task performance because an individual oftentimes thinks about this prior stimulus as opposed to focusing on the task at hand. However, a brief mindfulness induction (five minutes) has been found to effectively decrease this residue of attention (Kuo & Yeh, 2015). More mindful people can more readily disengage from emotions or thoughts about the distracting event and, thus, are able to sustain their attention to and engagement with the intended task (Long & Christian, 2015).

Furthermore, working memory has been found to be an important predictor of job performance (Postlethwaite, 2011), but highly stressful or demanding situations can lead to a depletion in working memory capacity. This is because such situations can lead to the release of stress hormones, which can inhibit working memory (Oei, Everaerd, Elzinga, Van Well, & Bermond, 2006). Mindfulness can facilitate more balanced physiological response systems, leading to a reduction in stress hormone production (Glomb et al., 2011). This relationship has been supported in a study by Jha et al. (2010) who found that soldiers who received mindfulness training in a pre-deployment period had increased working memory capacity, compared to the control group for whom working memory depletion occurred.

Mindfulness can also buffer against task performance decrements caused by internal distractions (Good et al., 2016). One such internal distraction is stereotype threat, which relates to reduced task performance caused by social comparisons that are viewed as unfavourable (Spencer, Steele, & Quinn, 1999). One explanation of this effect is that the cognitive resources (working memory) needed to perform successfully are drained (Schmader & Johns, 2003). When people are in a mindful state, however, attentional resources are directed towards the task with the result that threat-related information, which inhibits working memory and performance, is reduced. This association has been supported in an experiment conducted by Weger, Hooper, Meier, and Hopthrow (2012). They found that an induced stereotype threat (female – lower math performance) could be counteracted through brief (five minutes) mindfulness training.

Goals and motivation. Kirk, Brown, and Downar (2015) found that mindfulness practitioners were less affected by extrinsic rewards (money), which is often tied to the accomplishment of goals in the workplace. However, even though less impacted by extrinsic rewards, these individuals did not exhibit decrements in their task performance when compared to matched controls. This finding may be explained by the association between mindfulness and autonomous motivation (Glomb et al., 2011). The present-centred awareness and attention characteristic of mindfulness facilitates self-knowledge, namely the knowledge of one's needs, feelings, and values. This knowledge increases the likelihood that an individual will choose behaviours that are aligned with one's values (Brown & Ryan, 2003). Goal congruence, in turn, has been associated with increased effort, persistence, leering, and satisfaction (Ryan & Deci, 2000) and thus enhanced task performance.

Mindfulness and contextual performance. Contextual activities contribute to organisational effectiveness by improving the organisational, social, and psychological context, which serves as the facilitator for task activities and processes (Borman & Motowidlo, 1997). Smith, Organ, and Near (1983) as well as Bateman and Organ (1983) introduced the concept of organisational citizenship behaviours (OCBs). Based on this work, Williams and Anderson (1991) organized OCBs into categories founded on the direction or target of the behaviour. Specifically, they identified behaviours that benefit other individuals as OCB-Individual and those behaviours that benefit the organisation as OCB-Organisation. The present research focuses on interpersonal organisational citizenship behaviours (OCB-I) because empirical evidence suggests that these behaviours are more strongly related to group and organisational performance than other forms of OCBs (Podsakoff, MacKenzie, Paine, & Bachrach, 2000).

OCB-I is defined as those behaviours that go above and beyond an employee's formal job requirements to assist co-workers (Lee & Allen, 2002). More mindful individuals have been found to have greater meta-cognitive awareness, which can aid them in understanding their own emotional processes, allowing for the enhanced understanding of the emotional processes of others (Glomb et al., 2011). Evidence for this proposition stems from social neurobiological research that has found that the capacity to be attuned to others depends partially on one's own knowledge of mind and internal states (Siegel, 2007). Furthermore, Cozolino (2007) found that physiological awareness and regulation, a key characteristic of mindfulness, promotes empathy (Cozolino, 2007). To be empathetic, individuals need to experience (physiologically and emotionally) the inner experience of others. Mindful individuals tend to be more empathetic, and this has been shown to lead to increased OCB-Is (Glomb et al., 2011; Kamdar, McAllister, Turban, 2006). Building on the above, Wachs and Cordova (2007) suggested that mindfulness results in one becoming more skilful in relating to others and also improves interpersonal relationship quality (Barnes, Brown, Krusemaark, Campbell, & Rogge, 2007).

Lim, Codon, and De Steno (2015) found empirical support to show that mindfulness engenders prosocial behaviours. Following a three-week mobile-application mindfulness meditation training, participants were compared to those who participated in cognitive skills training in their likelihood to offer a seat to a confederate on crutches. They found that those who had participated in the mindfulness training were more likely to give up their seat than the control group. Furthermore, Reb et al. (2013) found support for this relationship in a workplace context where employees' level of trait-mindfulness was positively correlated with OCB-Is.

Another explanation for the relationship between mindfulness and OCB-Is stems from research conducted on mindfulness and helping-related emotions (Cameron & Fredrickson, 2013). First, mindfulness has been linked to increased positive emotions during the act of helping. Enhanced present-focused attention may augment an individual's ability to recognize the positive features of helping such as the consequences that one's behaviour has on others (Cameron & Fredrickson, 2013). Focusing on such positive aspects of the situation, in turn, leads to the experience of more positive emotions creating an upward spiral of other focus and broader situational awareness (Garland & Fredrickson, 2013). Support for this proposition stems from Berry et al. (2018) who found that mindfulness leads to other-oriented positive emotions such as sympathy and compassion, which in turn increases the likelihood of helping behaviours.

Second, mindfulness has been associated with reduced negative emotions (e.g. personal distress) during the act of helping and may therefore buffer against their deterrent effect implicated in future helping. This is because mindfulness facilitates the acceptance of negative emotions, which may aid in the reinterpretation of the situation as less threatening and allow people to more readily disengage from such emotions (Cameron & Fredrickson, 2013). In summary, mindfulness has been associated with more empathetic responding as well as the increased experience of positive and decreased experience of negative emotions during the act of helping, which may relate to increased OCB-Is.

Hypothesis 1: Mindfulness relates to job performance in that:
Hypothesis 1a: Mindfulness is positively related to task performance.
Hypothesis 1b: Mindfulness is positively related to OCB-Is.

Mindfulness and Relationship Outcomes

Good et al. (2016) proposed several relationship outcomes in their theoretical framework including communication and relationship quality, conflict management, empathy and compassion, leadership, and teamwork. This study focuses on conflict management because Good et al. (2016) suggested that it is one of the key workplace outcomes of mindfulness in the relationship domain. Katz and Flynn (2013) argued that conflict in organisations has rapidly increased in recent years due to changing organisational structures, increased competition, and greater interdependence among stakeholders. Workplace conflict that escalates and is not handled well has adverse indirect and direct costs for employers, employees and overall organisational effectiveness. Katz and Flynn (2013) found that more performance problems are caused by strained relationships than by deficits in motivation or skills.

Mindfulness and conflict management. Conflict management relates to the intent as well as actual behaviour of people that experience conflict (De Dreu, Evers, Beersma, Kluwer, & Nauta, 2001). Conflict management strategies at the workplace tend to be explained and categorized using Dual Concern Theory (Pruitt & Rubin, 1986). This theory proposes that conflict management is the result of high or low concern for self and others. From these functions, four different conflict management strategies can be developed.

The first strategy, *forcing*, is a function of high concern for self and low concern for others whereby an individual will attempt to impose his or her will on others. It involves non-

negotiable demands as well as threats and bluffs. The second strategy is called *yielding,* which stems from low concern for self and high concern for others. This conflict management approach is geared at accepting and incorporating the will of others. It entails unconditional promises, offering help and unilateral concessions. Thirdly, *avoiding* is a function of low concern for self and others and entails the attempts to suppress thinking about problems and reducing the importance of issues. The final and most effective conflict management strategy is called *problem solving* and is a result of high concern for self and others. This approach is oriented towards reaching agreements that satisfy one's own and others' needs and aspirations as much as possible. It also entails the exchange of relevant information, the ability to make trade-offs as well as showing insight (De Dreu et al., 2001; Pruitt & Rubin, 1986). To the researcher's knowledge no empirical research has yet been conducted that specifically links mindfulness to conflict management strategies.

Concern for self. At the heart of Buddhist psychology lies the teaching that the self is a product of ongoing mental processes, it is not permanent neither unchanging (Olendzki, 2010). Mindfulness training leads to an increased internal awareness which allows the practitioner to observe mental processes with greater clarity (Mac Lean et al., 2010). This meta-awareness allows for a non-conceptual perspective toward the contents of consciousness and, thereby, leads to a detachment from the static sense of self (Hölzel et al., 2011). The contents of consciousness can be experienced as fleeting events rather than reflections of reality and this process has been termed 'reperceiving' or 'decentering' (Carmody, Baer, Lykins, & Olendzki, 2009). The uncoupling of the directly experienced sense of self from the narrative sense of self has been found to lead to a more positive self-representation, higher acceptance of oneself, as well as increased self-esteem (Hölzel et al., 2011).

Indeed, in a study conduct by Pepping, O'Donovan, and Davis (2013) trait mindfulness as well as experimentally induced mindfulness was related to higher levels of self-esteem. They found that those individuals that underwent a brief mindfulness induction were better able dis-identify from negative thoughts by seeing these as fleeting mental events. Furthermore, Heppner and Kernis (2007) showed that mindfulness was related to forms of secure high self-esteem as opposed to fragile high self-esteem. Fragile high self-esteem leads to feelings of self-worth that are contingent on achievement/meeting certain standards and is vulnerable to challenge, which leads to the engagement in self-enhancing and self-protective strategies. In comparison, secure high self-esteem leads to feelings of self-worth that are not highly vulnerable to challenge, are well-anchored and congruent with one's self-views

(Heppner & Kernis, 2007). Mindfulness allows for greater insight into self and eases ego-based concerns that encourages a more compassionate concern for oneself (Brown et al., 2007) and should therefore be associated with conflict management strategies that involve a high concern for self.

Concern for others. Organisational conflict is characterised by a multiplicity of perspectives, values, interests, and experiences. Oore, Leiter, and LeBlanc (2015) proposed that perspective taking is essential for successful conflict resolution and the adaption of effective conflict management strategies. Davis (1983, p. 115) defined perspective taking as "the tendency to spontaneously adopt the psychological point of view of others". Le Blanc, Oore, Calnan, and Solarz's (2012) study among health care workers confirmed that individuals with higher dispositional tendencies for perspective-taking experienced less relational conflict. Moreover, in negotiation situations, higher levels of perspective taking have been associated with better resolutions (Galinsky, Maddux, Gilin Oore, & White, 2008). In adopting such a mindset, psychological distance is created that allows for the recognition of and reductions in biased viewpoints (Le Blanc et al., 2012). By zooming out from conflict, people can view and adopt a multiplicity of perspectives and focus on the highest-priority issues that leads to a more effective conflict resolution (De Dreu, Giacomatonio, Shalvi, & Sligse, 2009).

Mindfulness has been theoretically (Brown, Berry, & Quagila, 2017) and empirically (Beitel, Ferrer, & Cecero, 2004; Block-Lerner, Adair, Plumb, Rhatigan, & Osrillo, 2007; Berry et al., 2018) linked to perspective taking. Mindfulness may reduce self-preoccupation and, thereby, allow for the purposeful shifting of attention from the self to others that is important in taking the perspective of another person. Additionally, mindfulness enhances the clarity of and reduces self-serving biases in perception. Unbiased processing, in turn, facilitates the accuracy of assessing mental states in others (Berry et al., 2018).

Mindfulness also facilitates social connectedness (Brown et al., 2016). To the extent that mindfulness leads to a dis-identification from a static view of the self, mindfulness affords less ego-involvement that is reflected reduced self-defence and increased self-other connectedness (Brown et al., 2007; Brown et al., 2016). Disengaging from automatic, self-centred concerns may lessen the psychological distances that separates the self from others (Trautwein, Naranjo, & Schmidt, 2014). This may increase the perceived similarity between oneself and other people. According to Social Identity Theory (Tajfel, 1974; Turner, Brown, & Tajfel, 1979) this perceived similarity can translate into increased concern for others and may result in higher prosocial action (Berry et al., 2018). Berry et al., (2018) found that a

brief mindfulness induction increased empathy and prosocial action amongst white women towards black individuals.

In summary, mindfulness enhances an individual's ability of perspective taking and facilitates a dis-identification from the narrative sense of self which increases secure self-esteem and closes the psychological distance between the self and others. Mindfulness should, therefore, be related to conflict management strategies that result from high concern for self and others.

Hypothesis 2: Mindfulness relates to conflict management in that:
Hypothesis 2a: Mindfulness is positively related to problem solving.
Hypothesis 2b: Mindfulness is negatively related to forcing.
Hypothesis 2c: Mindfulness is negatively related to yielding.
Hypothesis 2d: Mindfulness is negatively related to avoiding.

Mindfulness and Wellbeing Outcomes

Employee wellbeing has been defined as the overall quality of an employee's functioning and experience at the workplace (Grant, Christianson, & Price, 2007). Good et al. (2016) refer to behavioural, psychological, and physical aspects of wellbeing. The present study focuses on subjective wellbeing (SWB) as the wellbeing outcome of interest, as it has been found to enhance workplace productivity, creativity and cooperation all of which are outcomes critical for an organisation's survival in today's world of work (De Neve, Diener, Tay, & Xuereb, 2013).

Mindfulness and subjective wellbeing. Subjective wellbeing (SWB) has emerged as a relatively new construct in the positive organisational behaviour research domain (Diener, Scollen, & Lucas, 2003). Diener et al. (2003) defined the construct as comprising of both positive affect and less negative affect as well as cognitive evaluations of one's life in general or particular domains of one's life such as job satisfaction. Furthermore, work-life balance (WLB) has been established as an antecedent of SWB, relating positively to job satisfaction, and positive affect and negatively to negative affect (Haar, Russo, Sune, and Ollier-Malaterre, 2014). Therefore, this study will explore WLB as a mediator in the relationship between mindfulness and SWB.

Mindfulness and affect. Mindfulness has been associated with enhanced adaptive affect regulatory tendencies by generating more positive emotions as well as down-regulating

negative emotions (Glomb et al., 2011). The enhanced attention and awareness towards one's internal experience associated with mindfulness facilitates the recognition of naturally occurring positive emotions. This allows for greater depth and vitality of positive events that may otherwise have been missed (Jislin-Goldberg, Tanay, & Bernstein, 2012). Tugade and Fredrickson (2007) argued that deliberately paying attention to positive emotions increases, prolongs, and maintains such emotions. This can promote a cycle of positivity whereby more positive events and emotions are recognized, in turn, biasing attention toward mood-congruent contextual information that further support positive appraisals and emotions (Garland, Geschwind, Peeters, & Wichers, 2015). Evidence for the association between mindfulness and positive affect stems from cross-sectional (Chadwick, Hember, Mead, Lilley, & Dagnan, 2005), intervention (Goldberg et al., 2012; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Shapiro, Brown, & Biegel, 2007) as well as functional neuroimaging (fMRI) studies (Davidson et al., 2003; Erisman & Roemer, 2010; Kong, Wang, Song, & Liu, 2016).

Despite these findings, the evidence is not always conclusive as some studies found that mindfulness was only associated with a reduction in negative affect but did not alter the level of positive affect (Chambers, Lo, & Allen, 2008; Jha et al., 2010). Given that mindfulness facilitates a non-preferential (neither toward or away from negative or positive affect), non-judgemental attention toward one's experience mindfulness may lead to greater equilibrium or a more moderate and balanced emotional demeanour characterised by lower levels of negative as well as lower levels of highly elevated states (Chambers et al., 2007). More research is thus needed to clarify the association between mindfulness and positive affect.

A significant body of extant work has demonstrated that mindfulness is associated with decreased negative affect (e.g. Arch & Craske, 2006; Creswell, Way, Eisenberger, & Liberman, 2007; Giluk, 2009). Mindfulness entails disengaging from habitually evaluative and conceptual processing (Didonna, 2009; Hülsheger et al., 2012). Individuals can stand back and witness their feelings and thoughts more objectively, thereby realizing that negative thoughts about the self are fleeting events rather than accurate representations of reality (Hülsheger et al., 2012). Coffey, Hartman, and Fredrickson (2010), for instance, showed that mindfulness leads to decreases in rumination (repetitive negative thoughts about the self), which is associated with negative affectivity.

In addition, the non-judgemental attention towards one's internal and external experiences facilitated by mindfulness has been shown to reduce the use of maladaptive

emotion regulation strategies. Alberts, Thewisse, and Raes (2012) argued that mindfulness is more effective in dissolving negative thoughts and emotions than suppression or avoidance emotion regulation strategies. Mindfulness encourages voluntary exposure to unpleasant or challenging experiences (Brown et al., 2007; Didonna, 2009). The act of simply labelling and observing one's distressing emotions as they are without attempting to alter, avoid, or escape them has been found to lead to a more rapid dissipation of exactly these negative emotions (Creswell et al., 2007). Thus, by being aware of, understanding, and accepting one's emotions, mindfulness affords individuals with the ability to correct or repair unpleasant mood states. These findings have been corroborated by cross-sectional (Baer et al., 2004; Brown & Ryan, 2003; Giluk, 2009) and intervention studies (Arch & Craske, 2010; Brown et al., 2007; Farb et al., 2010; Jha et al., 2010; Shapiro et al., 2007) as well as FMRI research (Creswell et al., 2007; Davidson, et al., 2003; Siegel, 2007).

Mindfulness and job satisfaction. The effect of mindfulness on job satisfaction is twofold. Firstly, support for the relationship between mindfulness and job satisfaction comes from affective events theory (Weiss & Cropanzano, 1996). This theory posits that events are proximal causes of the affective reactions of employees. These affective reactions, in turn, predict job satisfaction. Mindfulness positively affects adaptive stress appraisals which according to affective events theory increases job satisfaction (Hülsheger et al., 2012). Individuals who attend to the present moment in a non-judgemental and receptive way attach less meaning or evaluation to stressful events. Accordingly, individuals are less affected by biased and negative thought patterns, which can often lead to an overly dramatic perception of the situation (Weinstein, Brown, & Ryan, 2009). At the workplace, where employees are often confronted with challenging and stressful events and situations, mindfulness may aid in the adaptive appraisal of such situations. This can lead to more positive and less negative affective reactions resulting in a more positive judgement of one's work situation and thus higher levels of job satisfaction (Hülsheger et al., 2012). Secondly, mindfulness has been linked to enhanced self-determined behaviour (Glomb et al., 2011). Mindfulness decreases automatic and habitual functioning and by focusing awareness on the current moment, it aids individuals to gain a greater understanding of and get in contact with their basic needs and values (Shapiro, Carlson, Astin, & Freedman, 2006). The result is self-determined behaviour that is congruent with one's needs and values (Brown & Ryan, 2003). Mindfulness should, therefore, be positively related to job satisfaction as the latter is closely linked to goal self-concordance and value attainment (Hülsheger et al., 2012). Studies conducted by Andrews,

Kacmar and Kacmar (2014) as well as Hülsheger et al. (2012) provide empirical evidence for these propositions as mindfulness was positively related to job satisfaction.

Mindfulness, work-life balance, and subjective wellbeing. Work-life balance (WLB) has been defined as an individual's overall appraisal regarding one's effectiveness and satisfaction with work and life and is, therefore, regarded as an overall inter-role phenomenon (Greenhaus & Allen, 2010). Role balance theory (Marks & MacDermid, 1996) supports the assertion that mindfulness may be related to WLB. Marks and MacDermid (1996) formulated role balance theory and noted that positive role balance is a result of approaching every role with an attitude of care and attentiveness. Mindfulness represents a present moment awareness, which should enable an individual to fully immerse oneself with attentiveness and care in each role. This, in turn, should contribute to a perceived balance across multiple roles (Allen & Kiburz, 2012). In addition, the ability to bring full attentiveness to each role can help to dissipate possible problems of role management and thereby facilitate effective resource allocation (Allen & Paddock, 2015). These assertions have been empirically supported, as Allen and Kiburz (2012) found that greater trait mindfulness conveys a more positive perception of WLB. This is an important finding given that until now research on promoting WLB has mostly focused on organisational interventions (e.g. flexible work schedules; Hayman, 2009), which oftentimes do not have a significant effect on employees' personal lives (Michel, Bosch, & Rexroth, 2014). Scarcely, research has examined how an employee could actively enhance his/her own WLB (except for Kreiner, Hollensbe, & Sheep, 2009) who examined behavioural techniques).

Haar, Russo, Sune, and Ollier-Malterre (2014) confirmed the association between WLB and SWB and found that WLB was positively related to positive affect and job satisfaction and negatively related to negative affect. The ability to integrate family and work roles has been found to positively enhance an individual's emotional responses to the work role resulting in job satisfaction (Aryee, Srinivas, & Hoon Tan, 2005). Furthermore, the experience of role balance leads to better mental health and wellbeing because an individual that is balanced will experience a sense of harmony in life and better psychophysiological conditions. These enhanced conditions can enable individuals to meet the demands of work and non-work roles leading to more positive and less negative emotions and enhanced wellbeing (Ferguson, Carlson, Zivnuska, & Whitten, 2012). WLB may therefore function as a mediating mechanism in the relationship between mindfulness and subjective wellbeing.

Hypothesis 3: Mindfulness relates to subjective wellbeing in that:

Hypothesis 3a: Mindfulness is positively related to positive affect.

Hypothesis 3b: Mindfulness is negatively related to negative affect.

Hypothesis 3c: Mindfulness is positively related to job satisfaction.

Hypothesis 4a: The relationship between mindfulness and positive affect is mediated by work-life balance.

Hypothesis 4b: The relationship between mindfulness and negative affect is mediated by work-life balance.

Hypothesis 4c: The relationship between mindfulness and job satisfaction is mediated by work-life balance.

Final Notes

The literature review introduced the concept of mindfulness by tracing its origins and elaborating on its understanding in contemporary psychology. The integrative framework by Good et al. (2016) was discussed and it was explained how mindfulness affects cognition, emotion, behaviour and physiology which have an impact on key workplace outcomes. By empirically testing the relationship between mindfulness and task performance and interpersonal organisational citizenship behaviour, conflict management strategies, and lastly subjective wellbeing, this study provides a more holistic overview of the effects of mindfulness in a workplace context.

METHOD

The purpose of this study is to assess the relationship between mindfulness and various positive workplace outcomes, using Good et al.'s (2016) guiding framework. The following section is composed of five sub-sections which describe the methods used to examine the study's hypotheses. These are as follows: research design, sampling and participants, procedure and data analysis, measures, and lastly statistical analyses.

Research Design

The present study employed a descriptive design (Creswell, 2013) with a deductive approach for data collection and analysis. This design was chosen given that the objective of this study was to describe relationships between mindfulness and workplace outcomes and to make approximations pertaining to the population parameters (Kelley, Clark, Brown, & Sitzia, 2003). A cross-sectional time dimension was employed, which encompassed gathering data from respondents at one point in time (Hair, Black, Babin, Anderson, & Tatham, 2013). This method was chosen due to the resource and time constraints placed on this study (Wilson, 2014).

Consistent with this study's design, quantitative data were collected from participants through the use of a self-report, self-administered questionnaire, which was made available to respondents in an electronic format on the Qualtrics platform (Wilson, 2014). Since the variables being surveyed in this study represented subjective phenomena, the most effective method of measuring them was to assess respondents' feelings directly by utilizing a questionnaire (Veenhoven, 2012). Furthermore, questionnaires enable the researcher to gather data in a timeous manner and at a lower cost (Terre Blanche, Durrheim, & Painter, 2006).

Sampling and Participants

A non-probability convenience sampling method was utilised in this study. This method refers to the selection of a sample based on its accessibility and simplicity (Burns & Burns, 2008). Convenience sampling may result in the introduction of bias and can limit the generalisability of the results to the population (Cozby, 2009). Despite these shortfalls, this method was chosen given its efficiency and cost effectiveness (Terre Blanche et al., 2006). The sample was comprised of white-collar employees in South African organisations. The sample originally consisted of 261 respondents, however 44 cases had to be deleted because less than 75% of the full questionnaire had been completed (Field, 2013). After cleaning the data, the final sample consisted of 217 working professionals.

The demographic information pertaining to the sample indicated that the mean age of participants was 34.73 years old (SD = 10.94; range = 21 – 71; n = 210) and that more than two thirds of the sample were female (66.4%) (see Table 1 for additional participant socio-demographic information). Respondents spent an average of 45.5 hours per week at work (*SD*

= 9.47; range = 20 – 96; *n* = 204). Slightly more than half of the sample held a managerial job in their organisations (54.4%). With regards to the industry in which the respondents' companies operated, 52.1% (*n* = 113) of the employees worked in advertising/marketing, 15.6% (*n* = 34) worked in property development, 13.34% (*n* = 29) in the financial services industry and the rest worked either in consulting (12.44%; *n* = 27) or in recruiting (5.1%; *n* = 11).

Of those sampled, 41% (*n* = 89) participants had preciously participated in a mindfulness programme of which 15.2% (*n* = 33) made use of mindfulness training offered by their employer and 25.8% (*n* = 56) took part in such a programme in their private time. Slightly more than half the sample (54.5%, *n* = 115) engaged in informal mindfulness practices by attempting to incorporate mindfulness into their everyday life at least two to three times per week. Lastly, whereas 45% (*n* = 96) of the sample stated that they practiced mindfulness meditation at least once a week or more, the majority (57%, *n* = 121) stated that they never engaged in mindfulness meditation.

Table 2
Socio-demographic Characteristics of Respondents

Characteristic		Frequency	Percentage
Gender	Male	65	30%
	Female	144	66.4%
	Prefer not to answer	1	.5%
	Missing	7	3.2%
Marital status	Married/living with a partner	108	49.8%
	Separated/divorced/widowed	13	6%
	Single	89	41%
	Missing	7	3.2%
Educational level	Some secondary school	5	2.3%
	Matriculation certificate	27	12.4%
	Diploma	59	27.2%
	Degree	64	29.5%
	Postgraduate degree	56	25.8%
	Missing	6	2.8%
Employment level	Entry level	29	13.4%
	Intermediate/Experienced	64	29.5%
	Junior manager	16	7.4%
	Middle manager	57	26.3%
	Senior manager/Executive/Top level management	45	20.7%
	Missing	6	2.8%
Size of company	Small (1 – 9)	5	2.3%
	Small – Medium (10 – 49)	66	30.4%
	Medium (50 – 249)	84	38.7%
	Large (250+)	56	25.8%
	Missing	6	2.8%

Mindfulness programme offered by employer	No	183	84.3%
	Yes	33	15.2%
	Missing	1	.5%
Mindfulness programme in personal time	Yes	160	74.1%
	No	56	25.9%
	Missing	1	.5%
Engaged in informal mindfulness practice	Never	53	24.5%
	Less than once	18	8.3%
	Once	30	13.8%
	2-3 times	66	30.4%
	4-5 times	24	11.1%
	More than 5 times	25	11.5%
	Missing	1	.5%
Engaged in formal mindfulness meditation	Never	121	55.8%
	Less than once	31	14.3%
	Once	22	10.1%
	2-3 times	23	10.6%
	4-5 times	8	3.7%
	More than 5 times	12	5.5%
	Missing	12	5.5%

Procedure

Once ethics approval was granted from the University of Cape Town's Commerce Faculty Ethics in Research Committee, the researcher created an online survey using Qualtrics. Before data collection commenced, the survey was tested with six participants that had similar characteristics to the target sample, who provided qualitative feedback on items and design. This allowed for the detection and correction of errors before the questionnaire is made accessible to respondents (Terre Blanche et al., 2006). Respondents to the pilot survey indicated that item 12 of the Dutch Test for Conflict Handling (De Dreu et al., 2001) "I try to make differences loom less severe" was problematic. It was, therefore, decided to replace the verb "loom" with the verb "seem". Additionally, the test participants overwhelmingly suggested to remove the "Force Response" format. It was, thus, decided to rather set the response format to "Request Responses". This finding is consistent with Krosnick and Presser (2009) who reported that forcing responses on survey questions could lead to random responses or the termination of the questionnaire. No further issues were identified.

A total of 129 companies were contacted over a period of three months from March to June 2018 requesting permission to distribute the electronic survey to their employees. Of those contacted, twenty-three companies agreed to participate and provided written permission. An e-mail with a brief explanation of the study and the electronic link to

participate was then sent to a key contact within the organisation, who distributed it to their employees. In accordance with findings that response rates increase alongside the number of reminders (Fan & Yan, 2010; Van Mol, 2016), a follow up reminder e-mail was sent after two weeks to the organisation to distribute to their employees and this was repeated once more a week before survey termination.

Respondents were presented with a cover page which detailed the purpose of the study, approximately how long the questionnaire would take to be completed and it further assured them of their voluntary participation, anonymity and confidentiality of their data. The researcher's details were provided for respondents to raise any concerns or ask questions pertaining to the research. Furthermore, the cover page informed participants that they could enter a lucky draw and stand the chance to win R1500. The decision was made to offer a cash prize incentive, as research has found that offering such an incentive is the most effective way to enhance survey response rates (Pedersen & Nielsen, 2016). The instructions to entering lucky draw were detailed at the end of the survey so as to increase the likelihood of survey completion (Hsu, Schmeiser, Haggerty, & Nelson, 2017).

Measures

Seven measures were included to gather data for the purposes of this study. The chosen measures assessed mindfulness and its positive workplace consequences.

Mindfulness. The concept of mindfulness was assessed using both the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003) and the frequency in which participants engaged in mindfulness practices. The 15-item MAAS (Brown & Ryan, 2003) is a single-dimension measure of trait mindfulness. It assesses the frequency of an individual's awareness of as well as one's open and receptive attention to ongoing events and experiences. The response options of this 6-point Likert-type scale ranged from 1 = almost never to 6 = almost always. An example item is "I tend to walk quickly to get where I'm going without paying attention to what I experience along the way" (Refer to Appendix A for the full set of items from the MAAS). All item scores have to be reverse coded so that higher scores indicate higher levels of mindfulness.

Brown and Ryan (2003) in several studies have validated the scale and found internal consistency values ranging from $\alpha = 0.80$ to $\alpha = 0.87$. This scale is deemed appropriate for the present context of the study, as it has been extensively studied in organisational contexts (e.g. Hülsheger et al., 2013). In addition, it does not require participants to have experience

with mindfulness yet is able to distinguish between inexperienced and experienced respondents (Brown & Ryan, 2003). It has also been validated in a South African workplace context by Kotzé and Nel (2016) who found support for the uni-dimensional structure of the MAAS and reported a Cronbach's alpha value of .89.

Mindfulness practices. The respondents' frequency with which they engaged in formal (mindfulness meditation) and informal (brining mindfulness into everyday life) mindfulness related practices were assessed with a single item each. Participants had to indicate on a 6-point Likert type scale how often per week they engaged in formal and informal mindfulness practices. The scale ranged from 1 = never to 6 = more than 5 times.

Wellbeing outcomes. Using the integrative framework suggested by Good et al. (2016) well-being outcomes were assessed by examining work-life balance and subjective well-being. Subjective wellbeing comprised job satisfaction, low negative affect and high positive affect**.**

Job satisfaction. Job satisfaction was measured using an adapted version of the Michigan Organizational Assessment Questionnaire-Job Satisfaction Subscale (MOAQ-JSS, Cammann, Fichman, Jenkins, & Klesh, 1983). This scale consists of three items that assess global job satisfaction (Bowling & Hammond, 2008). Respondents had to indicate on a 6-point Likert-type scale their level of agreement concerning the statements (1 = strongly disagree and 6 = strongly agree). A sample item is "All in all I am satisfied with my job" (see Appendix A for the full set of items of the MOAQ-JSS). Item two "In general, I don't like my job" was adapted to "In general, I like my job". The decision was made to change this negatively formulated item into a positively one because research has demonstrated that instead of preventing response bias, adding reverse worded items to short scales appears to heighten the risk of inattention and confusion (van Sonderen, Sanderman, & Coyne, 213).

Bowling and Hammond (2008) found substantial evidence for the construct validity of the scale. The MOAQ-JSS demonstrated a pattern of relationships that was in accordance with its nomological network. Furthermore, internal consistency reliability was satisfactory (a = .84) (Bowling & Hammond, 2008). This measure was chosen due to its specific focus on global job satisfaction and its ability to assess both affective and cognitive evaluations of one's work environment (Bowling & Hammond, 2008). In addition, it has been validated in a Sub-Saharan African context by Addai, Kyeremeh, Abdulai, and Sarfo (2018).

Positive and negative affect. Positive and negative affect were measured with the International Positive and Negative Affect Schedule Short Form (I-PANAS-SF; Thompson, 2007). This measure consists of 10-items of which five represent negative (e.g. upset, hostile)

and five positive emotions (e.g. determined, attentive) (see Appendix A for all items). Respondents had to indicate on a 5-point scale (1 = never to 5 = always), the extent to which they generally feel different emotions and feelings with respect to a defined period of time. The present study attempted to assess trait-like positive and negative affect and, therefore, the time frame was specified at what participants 'normally' feel. High positive affect scores are supposed to reflect energy, concentration and engagement whereas high negative affect items represent distress and unpleasurable engagement (Thompson, 2007).

The internal consistency for trait-like positive affect has been found to be .78 and for negative effect .80 (Thompson, 2007). Furthermore, this scale has been shown to have good convergent and criterion-related validity and has been cross-culturally validated by Thompson (2007).

Work-life balance. Work-life balance was measured with the adapted 5-item Work-Family Balance (WFB-S) scale developed by Allen, Greenhaus, and Edwards (2010). This scale was originally developed to measure work-family balance. The present study, however, attempted to focus on respondents' work-life balance. The word 'family' was, therefore, replaced with the word 'life' in all items to ensure that all respondents could be addressed. Responses were recorded on a 5-point Likert-type rating scale that ranged from "strongly disagree" to "strongly agree". A sample item is "I am able to balance the demands of my work and the demands of my private life" (see Appendix A for all WFB-S items). Item two "Overall, I believe that my work and private life are out of balance" had to be reverse scored. Allen et al. (2010) found the scale to be internally consistence with a Cronbach's alpha of .88 and provided evidence for the scale's validity.

Performance outcomes. Performance outcomes in Good et al.'s (2016) integrative framework were assessed by examining both a task performance measure as well as interpersonal organisational citizenship behaviours.

Interpersonal organisational citizenship behaviours. Interpersonal organisational citizenship behaviours was assessed using the Organizational Citizenship Behavior-Individual Scale developed by Lee and Allen (2002). This scale consisted of eight items (for sample items see Appendix A). Respondents will have to indicate on a 5-point Likert-type scale ranging from 1 = Never to 5 = Always how frequently they participated in the identified behaviours. Lee and Allen (2002) found the Cronbach's alpha for the OCB-I scale to be .83 and found evidence for the validity of this scale. This measure was chosen, as it has been previously validated in a South African context (Beal III, Stavros, & Cole, 2013) and due to its specific focus on helping behaviours.

Task performance. Task performance was assessed using the Task-Based Job Performance Scale developed by Goodman and Svyanted (1999). This scale consisted of nine items and participants had to indicate on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) the extent to which they agree with the statements. A sample item was "I am competent in all areas of the job, and handle tasks with proficiency" (see Appendix A for all items). The internal consistency of the scale was .82 (Onwezen, van Veldhoven and Brion, 2012) and Goodman and Svyanted (1999) provided evidence for the validity of the scale.

Relationship outcomes. In the relationship domain of Good et al.'s (2016) framework, conflict management was chosen to demonstrate the relationship between mindfulness and relationship outcomes. Here the Dutch Test for Handling Conflict (de Dreu et al., 2001) was used to measure conflict management.

Conflict management. Conflict management was measured using the 16-item adapted Dutch Test for Conflict Handling (DUTCH; de Dreu et al., 2001). Respondents had to indicate on a 5-point Likert scale how often they enacted different conflict management strategies (1 = almost never and 5 = almost always). The measure consists of four subscales that each contained four items, which assess the distinct conflict management strategies: Problem solving ("I stand for my own and others' goals and interests"), forcing ("I do everything to win"), yielding ("I try to accommodate the other party"), and avoiding ("I avoid differences of opinion as much as possible") (see Appendix A for all DUTCH items). One item of the avoiding subscale was changed as participants in the pilot survey indicated that it may be confusing ("I try to make differences loom less severe" to "I try to make differences seem less severe").

The internal consistency of the DUTCH has been demonstrated by De Dreu et al. (2001) who found the following Cronbach's alpha values for the distinct subscales: Problem solving $\alpha = .78$, forcing $\alpha = .83$, avoiding $\alpha = .71$, and yielding $\alpha = .87$. The overall internal consistency reliability was .80 (De Dreu et al., 2001). This measure was chosen above other conflict management scales because it did not assess hierarchical relationships between conflict parties (see Rahim & Magner, 1995), it has been utilized in an organisational context (de Dreu et al., 2001), and because it has fewer items than other conflict management scales such as the commonly used Rahim Organisational Conflict Inventory (Rahim & Magner, 1995).

Demographic variables. Certain demographic variables were assessed in this study such as the respondents' age, marital status, educational level, employment level, size of the company, and industry.

Statistical Analyses

The data were exported from Qualtrics (2018) directly into the Statistical Package for Social Sciences (SPSS), version 25. The dataset was cleaned and coded based on statistical conventions before data analysis could proceed (Field, 2013). Thereafter, the scales' validity was determined using exploratory factor analysis. In order to assess the internal consistency of the measurement scales, Cronbach's alpha values were computed (Field, 2013). Subsequently, the scales' means and descriptive statistic pertaining to the central tendency were computed. With regards to the statistical analyses used, the first two hypotheses as well as hypotheses 3a-c were tested using Pearson product moment correlational analyses. Propositions 4a-c were assessed utilising Preacher and Hayes' (2004) PROCESS macro for SPSS, version 3.1 (2018).

Until recently, the most common procedure to test for mediation was Baron and Kenny's (1986) mediation procedure. This method is based on the causal steps approach to test for intervening variable effects. The researcher had to estimate each path in the model and then decide as to whether a variable acts as a mediator by assessing if certain statistical criteria were met. This causal step approach, however, has been criticized heavily on various grounds (Hayes, 2009). Firstly, it has been demonstrated that Baron and Kenny's (1986) procedure is among the lowest in power (Fritz & MacKinnon, 2007; Hayes, 2009). Secondly, their procedure is based on the significance of the relationship between the predictor and the outcome variable, which Hayes (2009) stated is not necessary for mediation to occur. Lastly, their method is not based on quantification of the intervening effect, which must be tested by another procedure, namely the Sobel test. The Sobel's (1982) test, however, requires the sampling distribution of the indirect effect to be normal, which is rarely the case in the field of psychology (Field, 2013; Hayes, 2009).

Given the above, Preacher and Hayes' (2004) PROCESS script was selected for the mediation analysis in this study. This procedure is based on bootstrapping, whereby an empirical representation of the sampling distribution of the indirect effect is generated. The obtained sample is thereby treated as the broader population, which is resampled repeatedly with replacement so that a new sample is built. Upon completion, an inference can be made

about the indirect effect size in the population from which the sample was drawn. This procedure computes percentile-based bootstrap confidence intervals (Field, 2013; Hayes, 2009). Preacher and Hayes' (2009) argued that their mediation procedure has the highest power and best Type I error control. It can also be utilised in small samples and when data are non-normally distributed (Hayes, 2009).

RESULTS

The following part outlines the results of the statistical analyses in six distinct sub-sections. The first two parts detail the psychometric properties of the measures by examining the dimensionality of scales through the use of exploratory factor analysis and their internal consistency. The third section examines the distribution of the data as well as the descriptive statistics pertaining to the measures. Section four and five outline the statistical tests used to examine the propositions. Where section four examines the relationship between mindfulness and workplace outcomes using of correlational tests, section five explores WLB as a mediator in the mindfulness-SWB relationship by utilising the Process-plugin. Lastly, section six details the final notes with regards to the results and provides a table that summarizes the findings.

Psychometric Properties of Scales

Validity analyses. Exploratory factor analysis (EFA) with principal axis factoring was employed to examine the dimensionality of the scales used in this study. The purpose of EFA is to achieve a better conceptual understanding of a set of variables. By accounting for the structure of correlations amongst the measure variables, the number and nature of common factors are determined (Fabrigar, Wegener, MacCallum, & Strahan, 1999). EFA identifies latent constructs and was therefore chosen over principal component analysis (PCA). The latter method should be utilised primarily for data reduction purposes, as PCA does not discern between unique and shared variance and thus is not able to identify unique factors (Costello & Osborne, 2005).

Principal axis factoring (PAF) was employed as the method of factor extraction. This is because PAF has been found to provide the most accurate results, particularly in cases where the data is not normally distributed (Costello & Osborne, 2005). Rotation is oftentimes required to create a more interpretable and parsimonious solution (Field, 2013). The present

study employed an oblique rotation method, namely direct oblimin rotation. Oblique rotation was preferred over orthogonal rotation, as it allows for factors to be correlated (Field, 2013). Many psychological constructs have been found to be correlated with one another hence oblique rotations seem to provide a more realistic and accurate representation of the interrelationships among constructs (Fabrigar et al., 1999).

For an EFA to produce meaningful results, certain assumptions needed to be met. The first assumption pertains to the sample size needed. Field (2013) suggests that the sample size should exceed a ratio of ten cases per independent variable. Given that this assumption was met, it was appropriate to conduct factor analysis. Secondly, with regards to sampling adequacy, the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) was evaluated. This statistic varies between 0 and 1, whereby a value closer to 1 indicates that factor analysis allows for the generation of distinct and reliable factors. Kaiser (1974) suggested that values greater than .5 could be accepted. Thirdly, the Bartlett's Test of Sphericity had to be significant in order to show that the scale items were adequately correlated (Field, 2013). These assumptions were met, as can be seen in Table 3.

Table 3
KMO and Bartlett's Test of Sphericity for all Scales

Mindfulness			
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.875
	Bartlett's Test of Sphericity	Approx. Chi-Square	1163.981
		Df	105
		Sig.	.00
OCB-I			
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.906
	Bartlett's Test of Sphericity	Approx. Chi-Square	946.101
		Df	28
		Sig.	.00
Task Performance			
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.890
	Bartlett's Test of Sphericity	Approx. Chi-Square	926.364
		Df	36
		Sig.	.00
Conflict Management			
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.779
	Bartlett's Test of Sphericity	Approx. Chi-Square	948.873
		Df	120
		Sig.	.00
Work-Life Balance			
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.892
	Bartlett's Test of Sphericity	Approx. Chi-Square	698.110
		Df	10
		Sig.	.00
PANAS-S			
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.767
	Bartlett's Test of Sphericity	Approx. Chi-Square	503.406
		Df	45
		Sig.	.00
Job Satisfaction			
	Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.718
	Bartlett's Test of Sphericity	Approx. Chi-Square	300.757
		Df	3
		Sig.	.00

With regards to factor retention, Kaiser's criterion of retaining factors with eigenvalues greater than 1 was adhered to (Field, 2013). To determine whether an item loaded significantly onto a factor, a cut-off point of .4 was utilised, indicative of a reliable item (Hair et al., 2006; Hinkin, 1998). Cross-loading items, which load higher than .4 on more than one dimension, were deleted. Hinkin (1998) further recommended that the differences between the primary and alternative factor loadings should also be considered, with a loading difference smaller than .2 requiring the deletion of an item.

Mindfulness. The fifteen-item MAAS was subjected to PAF. Given that mindfulness has been conceptualized as a uni-dimensional construct, no rotation was applied. In the first round of PAF four factors emerged with eigenvalues greater than one (see Table 4, Appendix C). However, item 6 did not load significantly onto any one factor (>.4) and items 3, 4, 11, 12, and 15 loaded onto more than one factor (> .4, loading difference less than .2). It was, thus, decided to re-run the EFA without these items.

In the second round of PAF, the nine remaining items loaded significantly onto one factor (.42 < *r* < .77) (see Table 4), with an eigenvalue of 4.12 explaining 45.72 % of the variance. The results, therefore, provide support for the uni-dimensionality of the MAAS and for its use in this study.

Table 5
Factor Loadings for the MAAS after Second Round of PAF

Code	Item	Factor Loading
M 1	I could be experiencing some emotion and not be conscious of it until sometime later.	.52
M 2	I break or spill things because of carelessness, not paying attention, or thinking of something else.	.42
M 5	I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	.46
M 7	It seems I am "running on automatic", without much awareness of what I'm doing.	.74
M 8	I rush through activities without being really attentive to them.	.75
M 9	I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	.61
M 10	I do jobs automatically, without being aware of what I'm doing.	.61
M 13	I find myself preoccupied with the future or the past.	.53
M 14	I find myself doing things without paying attention.	.74

Performance outcome (task performance and interpersonal organisational citizenship behaviours). The eight-item Organizational Citizenship Behaviors-Individual

Scale (Lee & Allen, 2002) scale and nine-item Task-Based Job Performance Scale (Goodman & Syantek, 1999) were subjected to principal axis extraction with direct oblimin rotation. Two significant factors with eigenvalues greater than 1 emerged accounting for 33.13% and 24.33% of the total variance of the data. Table 6 represents the factor loadings onto two factors. OCB-I items loaded significantly onto Factor 1 ($.66 < r < .83$), in line with existing research (Lee & Allen, 2002). Task performance items loaded significantly onto Factor 2 ($.46 < r < .83$) termed perceived task performance (Goodman & Svyantek, 1999). It can, thus, be concluded that both performance outcome measures are valid measures of their respective constructs.

Table 6

PAF Factor Loadings for Performance Outcomes

		Factor	
		OCB-I	**TP**
OCB 1	Willingly give your time to help others who have work-related problems.	**.74**	.15
OCB 2	Help others who have been absent.	**.76**	.16
OCB 3	Share personal property with others to help their work.	**.78**	.04
OCB 4	Assist others with their duties.	**.83**	.15
OCB 5	Show genuine concern and courtesy toward co-workers, even under the most trying business or personal situations.	**.66**	.2
OCB 6	Adjust your work schedule to accommodate other employees' requests for time off.	**.69**	.06
OCB 7	Go out of your way to make newer employees feel welcome in the work group.	**.71**	.08
OCB 8	Give up time to help others who have work or non-work problems.	**.8**	.14
TP 1	I achieve the objectives of my job.	.09	**.64**
TP 2	I meet my criteria for job performance.	.09	**.83**
TP 3	I demonstrate expertise in all job-related tasks.	.12	**.69**
TP 4	I fulfil all the requirements of my job.	.11	**.81**
TP 5	I can manage more responsibility than typically assigned to me.	.09	**.54**
TP 6	I appear to be suitable for a higher-level role.	.03	**.46**
TP 7	I am competent in all areas of the job and handle tasks with proficiency.	.12	**.7**
TP 8	I perform well in the overall job by carrying out tasks as expected.	.19	**.79**
TP 9	I plan and organize to achieve the objectives of the job and meet deadlines.	.19	**.72**
	Eigenvalue	5.63	4.14
	% Variance	33.13%	24.33%
	% Cumulative Variance	33.13%	57.47%

Relationship outcome (conflict management). To test the proposition that conflict management consists of four distinct conflict management strategies, the sixteen-item Dutch Test for Conflict Handling (de Dreu et al., 2001) scale was subjected to factor analysis using PAF and oblique, direct oblimin, rotation. In line with existing research (de Dreu et al., 2001), four distinct factors emerged: Avoiding (eigenvalue = 3.52; explained variance = 22.02%), Problem Solving (eigenvalue = 2.87; explained variance = 17.94%), Forcing (eigenvalue = 1.74; explained variance = 10.87%) and Yielding (eigenvalue = 1.25; explained variance = 7.81%). All conflict management items loaded significantly on at least one of the four factors ($.37 < r < .87$) (see Table 7 in Appendix C for all factor loadings). However, item 12 "I try to make differences seem less severe" loaded on more than one factor (difference less than .2) and was, therefore, omitted from further analysis.

Table 8
Factor Loadings for the Dutch Test for Conflict Handling Scale after Second Round of PAF

		Factor			
		A	**PS**	**F**	**Y**
CM 4	I avoid confrontation about our differences.	**.74**	-.08	.01	-.07
CM 8	I avoid differences of opinion as much as possible.	**.61**	-.07	.02	-.14
CM 16	I try to avoid confrontation with the other party.	**.87**	.03	.08	-.01
CM 3	I examine issues until I find a solution that really satisfies me and the other party.	-.13	**.52**	.08	.08
CM 7	I stand for my own and others' goals and interests.	-.14	**.56**	.2	.00
CM 11	I examine ideas from both sides to find a mutually optimal solution.	.02	**.76**	-.22	-.01
CM 15	I work out a solution that serves my own and the other party's interests as well as possible.	.07	**.77**	.07	-.0
CM 2	I push my own point of view.	-.18	.15	**.42**	.18
CM 6	I search for gains.	-.21	.01	**.51**	-.3
CM 10	I fight for a good outcome for myself.	.07	-.02	**.67**	-.01
CM 14	I do everything to win.	.18	.03	**.45**	.1
CM 1	I give in to the wishes of the other party.	.06	-.13	-.2	**-.59**
CM 5	I agree with the other party.	.05	-.13	.1	**-.67**
CM 9	I try to accommodate the other party.	.06	.21	-.07	**-.50**
CM 13	I adapt to the other parties' goals and interests.	.15	.18	.1	**-.6**
	Eigenvalue	3.48	2.51	1.73	1.24
	% Variance	23.20	16.73	11.56	8.23
	% Cumulative Variance	23.20	39.93	51.50	59.76

Extraction Method: Principal Axis Factoring with direct oblimin rotation. A = Avoiding, PS = Problem Solving, F = Forcing, Y = Yielding.

A second round of PAF with direct oblimin rotation was conducted on the remaining 15 items. Again, four different factors emerged, and items loaded significantly onto at least one

factor (see Table 8 for eigenvalues, explained variance, and factor loadings). Furthermore, no cross-loading items could be identified. The results of the EFA provided support for the use of avoiding, problem solving, forcing, and yielding items as distinct conflict management strategies.

Wellbeing outcome (positive affect, negative affect, job satisfaction, work-life balance). Data were subjected to PAF with a direct oblimin rotation. Four different factors with eigenvalues greater than 1 emerged accounting for 31.24%, 12.95%, 10.53%, and 8.8% of the total variance. However, as can be seen in Table 9 in Appendix C, the item "Inspired" of the positive affect scale cross-loaded with the job satisfaction scale and was omitted from further analysis.

Table 10
Factor Loadings after Second Round of PAF for Wellbeing Outcomes

		Factor			
		WLB	**JS**	**NA**	**PA**
JS 1	All in all I am satisfied with my job.	.12	**.8**	-.1	.0
JS 2	In general, I like my job.	-.13	**.89**	-.08	.06
JS 3	In general, I like working here.	.11	**.69**	-.03	-.03
WLB 1	I am able to balance the demands of my work and the demands of my private life.	**.85**	.1	.03	.02
WLB 2	Overall, I believe that my work and private life are out of balance.	**.69**	-.1	-.1	-.02
WLB 3	I balance my work and private responsibilities so that one does not upset the other.	**.81**	.03	-.07	-.01
WLB 4	I experience a high level of work-life balance.	**.86**	.0	.03	.07
WLB 5	I am satisfied with the balance I have achieved between my work and my private life.	**.83**	.06	.05	.02
NA 1	Upset	-.14	-.16	**.48**	-.03
NA 2	Hostile	-.07	-.14	**.49**	-.08
NA 3	Ashamed	.1	.05	**.64**	-.11
NA 4	Nervous	-.09	.01	**.69**	.05
NA 5	Afraid	-.04	-.03	**.79**	.13
PA 1	Alert	.1	-.07	-.02	**.42**
PA 3	Determined	-.05	.16	.17	**.6**
PA 4	Attentive	.03	-.04	-.01	**.66**
PA 5	Active	-.06	.06	-.22	**.54**
	Eigenvalue	5.62	2.33	1.9	1.58
	% Variance	31.24	12.95	10.53	8.8
	% Cumulative Variance	31.24	44.19	54.72	63.48

Extraction Method: Principal Axis Factoring with direct oblimin rotation. WLB = Work-life Balance, JS = Job Satisfaction, NA = Negative Affect, PA = Positive Affect.

A second round of PAF with direct oblimin rotation was conducted on the remaining items. Again, four different factors emerged (see Table 10). Work-life balance items loaded highly onto Factor 1 (.69 < *r* < .86). Job satisfaction items loaded highly onto Factor 2 (.69 < *r* < .89) and negative affect items (.48 < *r* < .79) and positive affect items (.42 < *r* < .66) loaded onto Factor 3 and Factor 4 respectively. Furthermore, no cross-loading items could be identified. The results of the EFA provided support for the use of positive and negative affect as two distinct scales (Thompson, 2007) as well as for the uni-dimensionality of the work-life balance (Allen et al., 2010) and job satisfaction scale (Cammann et al., 1983).

Reliability Analyses. Cronbach's alpha coefficients were calculated for all scales to assess their internal consistency. In general, coefficient alpha values of greater than .7 are considered an acceptable level of reliability, indicative of high internal consistency among items (George & Mallery, 2003). However, Kline (1994) argued that when dealing with psychological constructs, values below .7 could still be appropriate. Furthermore, given that the Cronbach's alpha coefficient is affected by the number of items in the scale, short scales can often exhibit low values. Briggs and Cheek (1986) recommended that in cases where scales have less than ten items, average inter-item correlations could be examined, which should not be less than .2. In order to assess whether the responses provided on a given item were consistent with those given on the overall scale, all corrected item-total correlations were examined. As a rule of thumb, Field (2013) recommended that only items with item-total correlations of greater than .3 should be retained.

As can be seen in Table 11, all scales had acceptable Cronbach's alpha values of above .7 except for the PANAS positive affect subscale (a = .63; 4 items) and the Dutch Test for Conflict Handling - Forcing subscale (a = .57; 4 items). However, given that the Cronbach's alpha coefficient is sensitive to the number of items, it was decided to calculate the mean inter-item correlation. Both scales had average item-total correlations of above the .2 threshold and it was, therefore, decided to retain these scales (Positive affect r = .42; Forcing r = .25). Additionally, as can be seen in Table 11, all corrected item-total correlations were above the recommended .3 cut-off.

Table 11
Internal Consistency Reliability for all Scales

	Cronbach's Alpha	Corrected Item-Total Correlations
Mindful Attention Awareness Scale (9 items)	.84	.38 < *r* < .69
Perceived Task-Based Job Performance Scale (9 items)	.87	.43 < *r* < .76
Organizational Citizenship Behavior – Individual Scale (8 items)	.91	.63 < *r* < .81
Michigan Organizational Assessment Questionnaire – Job Satisfaction Subscale (3 items)	.85	.7 < *r* < .76
International Positive and Negative Affect Schedule Short Form		
Negative Affect (5 items)	.79	.51 < *r* < .67
Positive Affect (4 items)	.63	.33 < *r* < .5
Work-Life Balance Scale (5 items)	.9	.63 < *r* < .81
Dutch Test for Conflict Handling		
Problem Solving (4 items)	.76	.49 < *r* < .63
Forcing (4 items)	.57	.31 < *r* < .46
Avoiding (3 items)	.82	.62 < *r* < .7
Yielding (4 items)	.7	.43 < *r* < .54

Descriptive Statistics

As can be observed in Table 12, some variables had missing values. This was not deemed problematic as the number of missing cases was less than 5% of the sample and as such the data may be left unchanged (Field, 2013).

Skewness and kurtosis were examined to test whether the data were normally distributed. Skewness assesses a distribution's symmetry, whereas kurtosis refers to a distribution's width and height (Field, 2013). In SPSS, if both values are close to zero, the data are normally distributed (Field, 2013). As can be seen in Table 12 most variables were relatively normally distributed. However, task performance data seemed to be more leptokurtic than the Gaussian curve (kurtosis = 1.44) and moderately skewed (skewness = -.82). Job satisfaction also seems to be non-normally distributed as -1.3 is indicative of high skewness and a value of 1.7 for kurtosis means that the data values are more peaked.

Furthermore, the distribution of data points for negative affect (kurtosis = 1.39), problem solving (kurtosis = 2.05) and yielding (kurtosis = 1) are more peaked than the Gaussian curve. However, even though some of the data are not normally distributed, it should be noted that normality is rare in the field of psychology. In addition, the parametric tests used in SPSS are highly robust and can also be utilised in cases where data do not fulfil assumptions of normality (Field, 2013).

Mindfulness and job satisfaction were measured on a 6-point scale. As can be seen in Table 12, respondents had relatively high levels of both mindfulness (*M* = 4.1; *SD* = .84) and job satisfaction (*M* = 4.87; *SD* = .97). The participants' level of perceived task performance was also well above the scale's midpoint of 4 (*M* = 6; *SD* = .64). The remainder of the scales were assessed on a 5-point Likert scale the means of which can be seen in Table 12.

Table 12
Descriptive Statistics for all Scales

Scale	*N*	*Min*	*Max*	*M*	*SD*	*Skewness*	*Kurtosis*
Mindfulness	217	1.44	6	4.1	.84	-.21	-.11
Task Performance	211	3.44	7	6	.64	-.82	1.44
Interpersonal Organisational Citizenship Behaviours	216	1.38	5	3.66	.87	-.38	-.66
Job Satisfaction	217	1.67	6	4.87	.97	-1.3	1.7
Positive Affect	211	2.3	5	3.83	.6	-.33	-.04
Negative Affect	211	1	4.4	1.89	.61	.99	1.39
Work-Life Balance	217	1	5	3.48	.88	-.55	.06
Problem Solving	215	1	5	3.84	.59	-.58	2.05
Forcing	215	1	5	2.93	.66	.21	.94
Avoiding	215	1	5	3.27	.91	-.19	-.41
Yielding	215	1.25	5	3.23	.57	-.25	1

Notes. Variables in the table are composite variables; *N* = Sample size, Min = Minimum, Max = Maximum, *M* = Mean, *SD* = Standard deviation.

Correlation Analyses

To test hypothesis 1 and 2 as well as 3a-c and to determine whether variables were correlated, Pearson Product-Moment correlation analysis was utilised. Before conducting this parametric test, certain assumptions needed to be met. Firstly, no outliers should be present in the data. Box-and-whisker plots were created to test this assumption (Field, 2013). Both problem solving and yielding had one outlier and job satisfaction had four extreme cases. It was, therefore, decided to remove these data points (see Figure 2 in Appendix D). Secondly, data should be normally distributed. However, Field (2013) stated that if the sample size is

greater than 100, this assumption could be disregarded as the parametric tests used in SPSS are highly robust.

Correlation coefficients were interpreted according to Cohen's (1988) recommendations, whereby coefficients ranging between .1 and .29 indicate a small effect, between .3 and .49 a medium effect and lastly between .5 and 1 a large effect (see Table 13 for correlation matrix of all variables).

As can be seen in the correlation matrix below (Table 13), mindfulness was not significantly correlated to any of the performance outcomes (task performance, $r = .13$, $p = .06$, $n = 211$; interpersonal organisational citizenship behaviours, $r = .03$, $p = .63$, $n = 211$). Hypothesis 1a and 2b thus need to be rejected, as higher levels of mindfulness are not related to better job performance.

With regards to the relationship outcomes, the relationship between mindfulness and conflict management strategies was assessed. It was found that mindfulness was positively and significantly related to problem solving, $r = .18$, $p < .01$, $n = 211$. Furthermore, mindfulness was significantly and negatively related to both yielding ($r = -.22$, $p < .01$, $n = 211$) and avoiding ($r = -.25$, $p < .01$, $n = 211$). Hypothesis 2a, 2c, and 2d were thus supported. However, according to Cohen (1988) the magnitude of these correlation estimates was indicative of a small effect only and, thus, may have relatively limited practical significance. Lastly, Hypothesis 2b was not supported as the results revealed a statistically insignificant relationship between mindfulness and forcing ($r = .06$, $p = .38$, $n = 211$).

In the wellbeing domain, correlational analyses were utilised to assess the relationship between mindfulness and subjective wellbeing. As can be observed in Table 13, mindfulness was positively and significantly related to job satisfaction ($r = .3$, $p < .01$, $n = 211$) and this relationship was moderate in nature (Cohen, 1988). Mindfulness was further positively and significantly related to positive affect ($r = .26$, $p < .01$, $n = 211$). Yet, the magnitude of this relationship was small, rendering its practical significance low (Cohen, 1988). Lastly, the relationship between mindfulness and negative affect was statistically significant and of a large effect ($r = -.51$, $p < .01$, $n = 211$). Thus, hypotheses 3a, 3b, and 3c were supported as it was found that higher levels of mindfulness are related to higher levels of job satisfaction and positive affect and lower levels of negative affect.

Interestingly, informal and formal mindfulness practice were not correlated to any of the workplace outcomes and therefore not explored further in this study (see Table 13).

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Mindfulness	**(.84)**												
2. Informal practice	**.27****	**(N/A)**											
3. Formal practice	**.18****	**.55****	**(N/A)**										
4. Task performance	.13	.12	.09	**(.87)**									
5. Interpersonal organisational citizenship behaviours	.03	.01	.03	**.15***	**(.91)**								
6. Problem solving	**.18****	.12	.11	**.24****	**.32****	**(.76)**							
7. Avoiding	**-.25****	-.04	.01	-.13	.07	**-.28****	**(.82)**						
8. Yielding	**-.22****	-.05	-.04	.05	**.25****	.03	**.37****	**(.7)**					
9. Forcing	.07	.11	.08	-.01	.01	**.24****	-.08	-.05	**(.57)**				
10. Job satisfaction	**.3****	.05	.01	.01	**.24****	**.23****	-.11	.09	.04	**(.85)**			
11. Positive affect	**.19****	.09	.12	**.44****	**.23****	**.38****	**-.15***	.06	**.18****	**.25****	**(.63)**		
12. Negative affect	**-.49****	-.12	-.12	-.1	.02	**-.21****	**.22****	.07	.03	**-.35****	**-.18****	**(.79)**	
13. Work-life balance	**.43****	**.17***	.08	**.15***	-.06	.04	.01	-.07	-.06	**.34****	**.16***	**-.41****	**(.9)**

Note. $N = 211$ after listwise deletion of missing data. * $p \leq .05$, ** $p \leq .01$. Cronbach's alpha reflected on the diagonal in parenthesis.

Mediation Analyses

This section explains the mediation analyses performed to test hypotheses 4a to 4c. The PROCESS script developed by Preacher and Hayes (2004) was used which is based on linear regression and as such certain assumptions needed to be met for regression to be appropriate.

Regression diagnostics. The first assumption of normally distributed residuals could be disregarded given that the mediation test used employed bootstrapping, which accounts for violations of this assumption (Hayes, 2013). The second condition pertains to the sample size. Green's (1991) formula ($N > 50 + 8m$, where 'M' is the number of independent variables) was utilised. The smallest samples size required was 122, which is smaller than present study's sample size of 211 (after listwise deletion of data).

Thirdly, model bias needs to be assessed to detect outliers and influential cases. Field (2013) proposed that 95% the standardised residuals of all cases should be within two standard deviations from the mean. Both Model 1 (mindfulness -> WLB -> positive affect) and Model 2 (mindfulness -> WLB -> negative affect) had 10 outliers (4.7%). Model 3 (mindfulness -> WLB -> job satisfaction) had 8 outliers (3.8%). Given that 95% of the cases were within the specified range for all models, the models were deemed a good representation of the actual data. Additionally, Field (2013) suggested that outliers should be assessed by using Cook's distance to determine if they exert undue influence over the parameters of the model. The maximum Cook's distance of Model 1 was .19, of Model 2 it was .25 and for Model 3 it was .08. These values were well below the cut-off point of 1 and thus it could be concluded that no cases exerted undue influence (Cook & Weisberg, 1982).

The assumption of linearity was tested using P-P plots of the standardized residuals. As can be observed in Figures 3 to 5 in Appendix D, the points were roughly symmetrically distributed around the line with relatively constant variances and thus this assumption was upheld.

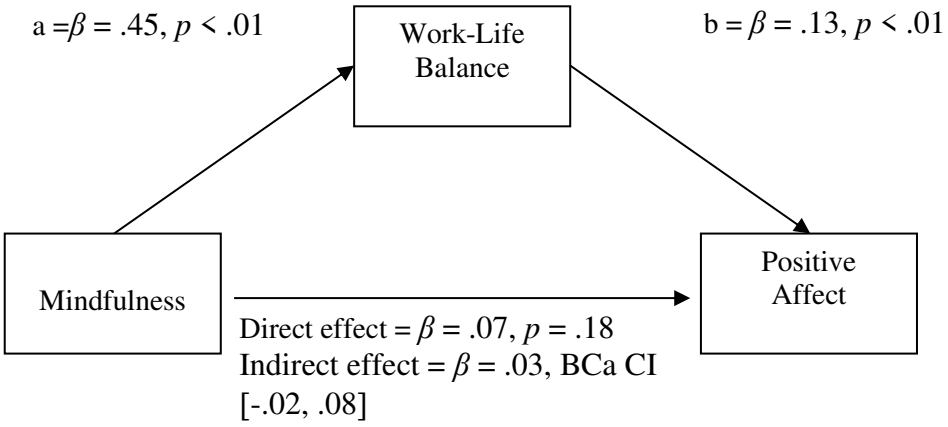
In order to test for the independence of residuals, which assumes that error terms are unrelated, scatterplots for each model plotting the regression standardized predicted value against the standardized residual, were examined. This method was chosen over the commonly used Durbin-Watson test, as this test has been criticized claiming that it is not adequate to be used when dealing with survey data (Montgomory, Peck, & Vining, 2012). This is because the Durbin-Watson test is based on time-ordered data (Montgomory et al.,

2012). Independence of error terms is given if the data points in the scatterplot roughly have a rectangular shape and fall in between 3 and -3 standard deviations on both the X and the Y axis (Montgomory et al., 2012). As can be seen in Figure 6 to 8 in Appendix D, this assumption was not violated.

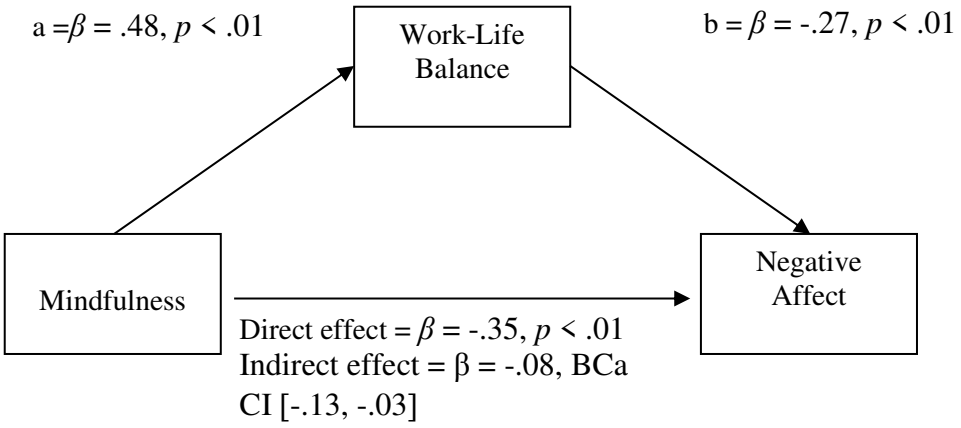
These residual scatterplots can further be examined to test for the assumption of homoscedasticity (Field, 2013), which assumes that the estimation error is relatively equal across the predicted values (Kane & Ashbaugh, 2017). Again, one should be able to observe a rectangular shape, which indicates consistency of estimation error. Given that the data points roughly represented this shape, the assumption was supported (see Figure 6 to 8 in Appendix D).

Lastly, there should be no multicollinearity, which means that the independent variables should not be highly correlated (Field, 2013). This assumption can be tested using the variance inflation factor (VIF) and the tolerance values. The VIF value was 1, which is well below the critical value of 10 (Bowerman & O'Connell, 1990) and the tolerance value was .99 greater than the cut-off of .2 (Menard, 1995). In this study it can be concluded that all assumptions pertaining to linear regression analysis were met and that it was adequate to perform this statistical test.

WLB as a mediator between mindfulness and positive affect. Preacher and Hayes (2004) PROCESS script was used to test the model of work-life balance as a mediator of the relationship between mindfulness and job satisfaction. In these analyses, mediation is significant if the 95% confidence intervals for the indirect effect do not include zero (Preacher & Hayes, 2004). All results were based on 10000 bootstraped samples. Results indicated that mindfulness was a significant predictor of positive affect (β = .13, t = 2.75, p < .01) accounting for 3.5% of the variance in positive affect. Mindfulness was also a significant predictor of work-life balance (β = .45, t = 6.86, p < .01, $R2$ = .18). However, work-life balance did not significantly predict positive affect (β = .1, t = 1.91, p = .06, $R2$ = .04). Furthermore, mindfulness did not predict positive affect when work-life balance was included as a mediator (β = .07, t = 1.34, p = .18). The indirect effect was negligible as the 95% bootstrapped confidence interval included zero (β = .03, BCa CI [-.02, .08]). Therefore, Hypothesis 4a was not supported, as mindfulness did not operate through work-life balance in predicting positive affect.

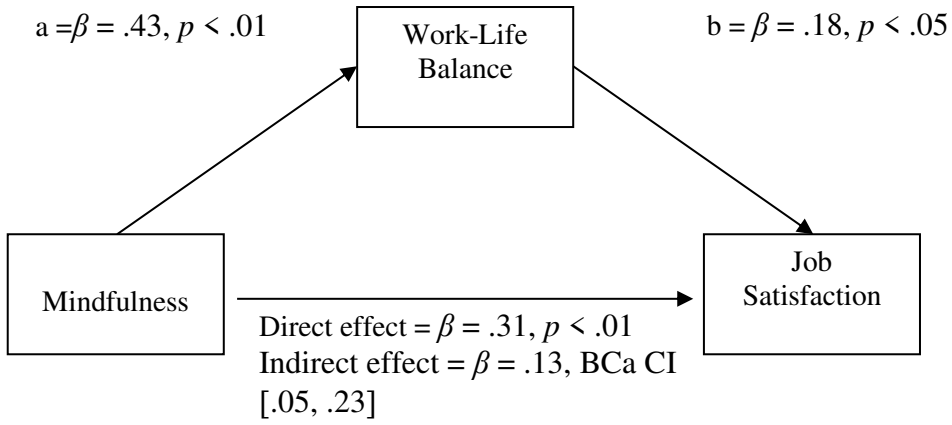


WLB as a mediator between mindfulness and negative affect. Results indicated that mindfulness was a significant predictor of negative affect (β = -.35, t = -8.04, p < .01) accounting for 26.38% of the variance in negative affect. Furthermore, mindfulness was a significant predictor of work-life balance (β = .45, t = 6.87, p < .01, $R2$ = .18) and work-life balance significantly predicted the outcome variable negative affect (β = -.27, t = -5.84, p < .01, $R2$ = .29). Mindfulness still predicted negative affect when work-life balance was included as a mediator (β = -.17, t = -3.8, p < .01). There was evidence of a partial mediation as the direct effect of mindfulness on negative affect through work-life balance was significant (β = -.08, BCa CI [-.13, -.03)]. Hypothesis 4b was, thus, supported as mindfulness predicted higher work-life balance, which, in turn, predicted decreased negative affect.



WLB as a mediator between mindfulness and job satisfaction. Results indicated that mindfulness was a significant predictor of job satisfaction (β = .31, t = 4.15, p < .01)

accounting for 50.11% of the variance. Mindfulness was further a significant predictor of the mediator work-life balance (β = .36, t = 6.56, p < .01) accounting for 17.09% of the variance. Lastly, work-life balance was a significant predictor of the outcome variable job satisfaction (β = .18, t = 2.24, p < .05). Mindfulness still predicted job satisfaction when work-life balance was included as a mediator (β = .31, t = 4.15, p < .01). However, there was a significant indirect effect of mindfulness on job satisfaction through work-life balance (β = .13, BCa CI [.05, .23]) indicating a partial mediation. Thus, Hypothesis 4c was supported, as participants with higher levels of mindfulness experienced more work-life balance, and through better work-life balanced had increased job satisfaction.



Final Notes

The study's findings are summarised in Table 14.

Table 14

Summary of Hypotheses and Findings

Hypotheses	**Data Analytic Procedure**	**Support**
1a) Mindfulness is positively related to task performance.	Correlation analysis	Not supported
1b) Mindfulness is positively related to OCB-Is.	Correlation analysis	Not supported
2a) Mindfulness is positively related to problem solving.	Correlation analysis	Supported
2b) Mindfulness is negatively related to forcing.	Correlation analysis	Not supported
2c) Mindfulness is negatively related to yielding.	Correlation analysis	Supported
2d) Mindfulness is negatively related to avoiding.	Correlation analysis	Supported
3a) Mindfulness is positively related to positive affect.	Correlation analysis	Supported
3b) Mindfulness is negatively related to negative affect.	Correlation analysis	Supported
3c) Mindfulness is positively related to job satisfaction.	Correlation analysis	Supported
4a) The relationship between mindfulness and positive affect is mediated by work-life balance.	Hayes' Process Mediation	Not supported
4b) The relationship between mindfulness and negative affect is mediated by work-life balance.	Hayes' Process Mediation	Supported
4c) The relationship between mindfulness and job satisfaction is mediated by work-life balance.	Hayes' Process Mediation	Supported

DISCUSSION

Despite an extensive body of research showing that mindfulness benefits both clinical and non-clinical populations, only a limited amount of work has examined its effect in a workplace context. The present study attempted to extend this body of research with a heterogeneous group of white collar employees in corporate South Africa. Moreover, this study is one of the first to test the relationship between mindfulness and three distinct categories of workplace outcomes in the form of performance (task and contextual), relationships (conflict management), and wellbeing (SWB). The findings mainly echoed the positive results found in previous studies that were conducted in a workplace environment (e.g. Hülsheger et al., 2012), in that mindfulness improved wellbeing outcomes, and was related to an increased use of positive and decreased use of most negative conflict management strategies. Though contrary to that hypothesized, mindfulness did not increase either of the job performance variables. The following section discusses the findings of this study in relation to existing literature, followed by presenting study's implications for theory and practice. This section concludes with noting some limitations of the study and offers some recommendations for future research.

Contributions of this Study

This study furthers knowledge concerning the outcomes of mindfulness in a workplace setting through the following contributions, which are subsequently discussed in greater detail:

1. Using Good et al's (2016) framework to guide the coice of workplace outcomes of mindfulness and empirically testing the relationship between mindfulness and the three categories: performance, relationships, and SWB. This was done by specifically focusing on pertinent constructs within each category as identified from the literature:
    - Job performance: task and contextual performance
    - Relationship: conflict management
    - Wellbeing: SWB (positive and negative affect and job satisfaction)
2. The study makes a further contribution by empirically examining WLB as a mediator of the relationship between mindfulness and SWB to better understand the potential mechanisms in this relationship as informed by the literature.

The Relationship between Mindfulness and Job Performance

The study findings indicated that mindfulness was not related to either of the job performance variables. This finding is inconsistent with past findings

Mindfulness and task performance. Contrary to previous research (e.g. Reb et al., 2015; Van Gordon, Shonin, Zangeneh, & Grifiths, 2014) which demonstrated that mindfulness enhances task performance, the results of the correlation analysis showed that mindfulness and task performance were not related in the present study. Interestingly, the mean level of self-reported task performance of participants was very high (M = 6 on a 7-point scale, SD = .64). This could have been due to social desirability bias (Foxcroft & Roodt, 2013). Participants may have wished to present a positive image of themselves and thus rated their task performance as very high. This high mean has been found to be a common issue when it comes to self-rated workplace task performance as self-ratings have been found to commonly exceed those provided by supervisors (Heidemeier & Moser, 2009). The fact that most participants rated their performance as very high (as indicated by a small standard deviation) could have introduced range restriction (Goodwin & Leech, 2006). Given that the value of r is greater if there is more variability among observations (Goodwin & Leech, 2006), the limited range of task performance scores could have decreased the correlation between mindfulness and task performance. Furthermore, it is important to note that previous studies (Reb et al., 2015; Shonin et al., 2014) that provided support for the relationship between mindfulness and task performance utilised supervisor- or employer-rated measures of task performance. Thus, there could have been a significant relationship between the two variables which was masked by issues of social desirability bias and range restriction in the present sample.

A further explanation for the non-significant relationship between mindfulness and task performance could be based on Dane's (2011) contingency framework, which specifies that the effects of mindfulness on task performance depend on an individual's task environment and level of task expertise. In dynamic task environments defined as those "in which individuals make a series of interdependent decisions in real time" (Dane, 2011, pp.1005-1006) (e.g. emergency response operations, context of negotiations, managerial labour), mindfulness may be beneficial for task performance. The wide external attentional breadth afforded by mindfulness may allow individuals to take in their whole environment, thus reducing errors that result from missing critical environmental cues. In support of this

proposition, Dane (2008) found that trial lawyers with higher levels of mindfulness were able to gain the most information from the courtroom (e.g. reactions from the judge, jury members) which facilitated the effective use of arguments and persuasive tactics. However, in static task environments which are those that are characterised by relatively predictable and stable relationships (Nadkarni & Barr, 2008), having a wide external attentional breadth may be detrimental to performance. This is because effective task performance in these environments oftentimes depends on an individual's ability to effectively filter out stimuli and to narrowly focus attention on the task at hand (e.g. writing a research paper) (Dane, 2011). The study's participants worked in corporate settings, likely to have been characterised by more predictable and stable relationships and consequently static task environments, thus explaining the non-significant relationship.

With regards to task expertise, Dane (2011) suggested that mindfulness is only beneficial to task performance if an individual's task expertise is high. Mindfulness does not only lead to a wide external attentional breadth but also increases one's attention towards one's internal environment by attuning people to phenomena that stem from the nonconscious systems (e.g. thoughts, beliefs, and feelings) (Hölzel et al., 2011). Mindfulness, for example, allows individuals to more readily become consciously aware of their intuitions which are judgements that result from rapid, holistic, and nonconscious associations (Dane, 2011). Without a wide internal attentional breadth afforded by mindfulness these may have otherwise been missed (Dane, 2011). However, being more aware of one's intuitions is only beneficial to task performance for task-experienced people. The intuitions of experts are more accurate as they develop from pattern matching of domain-relevant schemas thereby enhancing task performance. In contrast, the intuitions of task-inexperienced employees are often based on simple and bias-prone heuristics and awareness of these is oftentimes not beneficial to task performance. Hence, the findings could have been due to the fact that possibly some of the study's participants were task-inexperienced and the greater awareness associated with mindfulness may have made them more aware of bias-prone or simple intuitions that hampered their task performance.

Mindfulness and OCB-I. The results of this study showed that mindfulness was not related to higher OCB-I in the present sample. This is a surprising finding given that previous research (Berry et al., 2018; Birnie, Speca, & Carlson, 2010; Block-Lerner et al., 2007; Lim et al., 2015) demonstrated that staying in the present moment leads to increased empathy and helping behaviour, which are antecedents of OCB-I (Settoon & Mossholder, 2002). A

possible explanation for the results could stem from design differences between the present study and previous research, as this study used a cross-sectional design was used whereby trait variables were assessed. However, previous research (see Birnie et al., 2010) which demonstrated positive associations between mindfulness, empathy and helping behaviour explored this in the context of a mindfulness-based stress reduction intervention. The non-significant results could have been because trait mindfulness measures do not assess the ethical dimensions that are associated with mindfulness training and which could be responsible for leading to increases in OCB-I. Furthermore, previous research which found associations between trait mindfulness and empathy (Tipsord, 2009) did not utilise the MAAS to operationalise mindfulness. Tipsord (2009), for instance, found that different dimensions of the Five Facet Mindfulness Questionnaire correlated differently with the three components of dispositional empathy: higher describing scores were related to higher perspective taking scores, increases in observing score were associated with greater empathetic concern and higher non-reactivity levels were correlated with lower personal distress. The findings of this study could have thus been due to differences in operationalisations as the MAAS, a one-dimensional measure, may not be sensitive enough to adequately reflect the complexity of mindfulness (Grossman, 2009) in its relationship with OCB-I. Additionally, the present study did not assess empathy specifically, which could have been an important mediating mechanism for this relationship to be significant.

Secondly, in the absence of literature that has examined this exact relationship between mindfulness and OCB-I in a corporate context, studies that focus on the underlying motives of OCB-Is may aid us in explaining the findings of this research. Bolino (1999) found that OCB-Is exhibited in organisations could oftentimes be considered as acts of impression-management rather than being driven by social exchange and prosocial motives. Some employees may engage in OCB-Is to attain self-serving goals such as their personal career advancement or enhancing their own image (Bolino, Klotz, Turnley, & Harve, 2013). In support of this proposition, Hui, Lam, and Law (2000) demonstrated that immediately before promotion decisions employees exhibited higher levels of OCB-I and those who subsequently received promotions reduced their level of OCB-I. Mindfulness may reduce the occurrence of OCB-Is that are motivated by impression-management or other self-serving goals. Support for this speculation stems from a recent study conducted by Berry et al. (2018) who, in a series of four experiments, established that increases in helping behaviour could be explained by the effect that mindfulness has on the prosocial motive of empathetic concern.

Empathetic concern relates to other-oriented emotions such as sympathy, compassion or concern that are elicited by seeing a person in need (Niezink, Siero, Dijkstra, Buunk, & Barelds, 2012) and it has been found to be a consistent motivator of prosocial action (Batson, 2016; Berry et al., 2018). Consequently, it could be speculated that participants of this study with high levels of mindfulness only engaged in prosocially motivated OCB-Is rather than those related to impression management. They thus may have exhibited OCB-Is less frequently but for the 'right reasons'.

The Association between Mindfulness and Relationship Outcomes

The present study examined the relationships between mindfulness and distinct conflict management strategies, specifically that mindfulness should be positively related to problem solving and negatively to forcing, yielding, and avoiding. These hypotheses were supported except for mindfulness relating to forcing.

Mindfulness and problem solving. As expected, mindfulness was associated with an increased likelihood for using problem solving as the preferred strategy for handling conflict. Participants who were able to stay focused on what is happening in the present moment reported that they attempted to work out solutions that served their own and the other party's interests as well as possible in conflict situations. In the absence of previous research examining this exact relationship, explanations for this finding were drawn from literature on mindfulness and self-esteem as well as empathy. This is because problem solving has been found to be a result of high concern for self (optimal self-esteem) and others (empathy) (De Dreu et al., 2001).

Mindfulness facilitates optimal self-esteem and greater self-other connectedness through increased experiential processing (Brown et al., 2007; Brown et al., 2017; Farb et al., 2007). Participants with higher levels of mindfulness may have been able to more readily objectify their experiences, thoughts, and emotions by transforming them into sensory as opposed to self-relevant information. Individuals who are more aware of and view their mental content and emotions as fleeting events have, in turn, been found to have higher self-concept clarity, to accept themselves more fully and possess well-anchored feelings of self-worth (Brown et al., 2007), which is indicative of optimal self-esteem (Heppner & Kernis, 2007). Additionally, the behavioural choices of people with optimal self-esteem are informed by their needs, values and preferences (Kernis, 2003). Thus, in conflict situations, more

mindful employees may be more aware of as well as possess the confidence to voice their own interests and needs and thereby engage in solution-finding that take these into account.

Furthermore, mindfulness, through increased experiential processing, has been found to increase self-other connectedness (Berry et al., 2018; Brown et al., 2007; Lim et al., 2015). It is likely that those participants who were able to observe their mental content and reflect upon it without getting controlled or getting caught up in it, found it easier to shift their attention from themselves to the other person in conflict situations. Being able to focus on the other person in a conflict situation by disengaging attention from one's own mental states further facilitates perspective taking (Bolz & Singer, 2013). More attention can be devoted to the behavioural and verbal cues of the opposite party that aids in inferring their thoughts and feelings (Block-Lerner et al., 2007; Brown et al., 2016). The ReSource model developed by Bornemann and Singer (2013) may aid us in explaining why mindfulness heightens empathy. The authors suggest that to cultivate empathy attention should be geared to tap into pre-existing 'sources' of empathy. The ability to empathize depends on an individual's ability to (a) attend to the affected person, (b) take their perspective, and (c) be aware of and attend to one's own emotional and mental states and as the aforementioned illustrated mindfulness may provide an optimal psychological approach to tap into and cultivate all three of these capacities. Being able to empathize and take the perspective of another increase the likelihood that an individual will use problem solving as a conflict management strategy (Le Blanc et al., 2012). By zooming out from the conflict and by viewing the situation as is without biases, more mindful participants may have found it easier to adopt a multiplicity of perspectives and focus on the highest-priority issues, resulting in more effective conflict resolution.

Mindfulness and forcing. The finding that mindfulness was not related to forcing was surprising, especially given that the mean for forcing was the lowest amongst all conflict management strategies (M = 2.93 on a 5-point scale, SD = .66). Forcing entails that an individual imposes his/her will and does everything to win, which is oftentimes done in aggressive, confrontational, and intimidating manner. It was expected that mindfulness decreases the use of forcing because it not only facilitates being aware of and standing up for one's own interests but also affords an individual with the ability to emphasize and be sensitive to the needs and interests of the other party. In the present sample forcing was the least used conflict management strategy, yet it was unrelated to mindfulness. In the absence of literature on this exact relationship, it can only be speculated as to why this was the case.

The non-significant findings could have been due to the specific context in which this study took place. South Africa is one of the most diverse nations in the world and this is partially reflected in South African workplaces (Mazibuko & Govender, 2017). With the enactment of the Employment Equity Act (1998) and the Black Economic Empowerment Act (2003), organisations have become increasingly representative of the demographic population groups of South Africa. These different population groups have distinct value systems with most South Africans relating to an Afrocentric value system. This system is characteristic of a 'feminine culture' that values caring for others, and nurturing, as well as emphasises the commonality of all people and a high concern for relationships (Martins & Coetzee, 2011). Forcing is a function of a high concern for only oneself at the expense of the other party, which oftentimes results in relationships that are harmed beyond repair (De Dreu et al., 2001). Consequently, employees with Afrocentric value systems may refrain from utilising such a conflict management strategy, maybe even in cases where it would have been appropriate (e.g. when implementing an unpopular decision, the decision is vital in a crisis etc.). Thus, participants who put great emphasis on relationships may have been less likely to assert their own needs over those of the other party in conflict situations. Yet, mindfulness entails that an individual not only focuses on the needs and interest of the other party but that one puts an equal emphasis on one's own needs, thereby possibly accounting for the non-significant results.

Mindfulness and yielding. As expected, mindfulness was negatively related to yielding in the present sample. More mindful participants were less likely to accommodate or appease the other party by setting aside their own needs and interests. Research on mindfulness and optimal self-esteem can help us explain this finding. Rahim (2002) found that individuals who consistently use yielding as their preferred strategy for handling conflict oftentimes lack the confidence and skills (such as assertiveness) to work out a solution that could also satisfy their own needs and interest, which in the long run can lead to feelings of inadequacy and loss of respect from self and others. Additionally, they give in to the other party's demands because they fear their rejection or seek their approval (Rahim, 2002). This type of behaviour is often exhibited by people with contingent self-esteem (Heppner & Kernis, 2011). People high in contingent self-esteem base their self-worth on the approval of others and either seek excessive relational reassurances or fear rejection. It could thus be speculated that such people are more likely to employ yielding as a conflict management

strategy because they want to be liked by other employees/supervisors or are afraid of their rejection.

Mindfulness has been linked to optimal self-esteem (Hinterman, Burns, Hopwood, & Rogers, 2012; Michalak, Teismann, Heidenreich, Strohle, & Vocks, 2011; Pepping et al., 2013) that is secure, stable, and non-contingent. More mindful participants in this study may thus have been able to be more aware of and stand up for their needs and interests in a conflict situation without being excessively preoccupied with what the other party thinks of them. They may have been able to experience the conflict situation as is without viewing it as threatening to their self-image if they get into an argument with or are possibly disliked by the other party. According to Shapiro and Carlson (2009) the link between mindfulness and optimal self-esteem stems from the way that reality is differently perceived. In a mindful state, experiences can pass through awareness without being evaluated or ruminated upon and thus without habitually attaching them to the self. Taking experiences as face value without assigning personal meaning to them, in turn, reduces that they are anchored to one's self-worth. Hence, in this sample, more mindful participants were able to view conflict situations for what they are as opposed to being excessively preoccupied with what the personal implications are and were therefore more likely to also stand up for their own interests and needs.

Mindfulness and avoiding. Mindfulness was negatively related to avoiding in the present sample. Participants with higher levels of mindfulness were less likely to avoid confrontations with other employees in the workplace. Given the paucity of research on mindfulness and conflict management strategies, studies that have examined mindful emotion regulation may aid us in explaining the relationship. Higgins (1997) found that conflict avoidance is oftentimes a natural instinct of humans as they attempt to avoid the negative feelings associated with the conflict. Mindfulness may counter this natural instinct as it involves the conscious experience of emotions without the attempt to alter or suppress these, which is similar to an acceptance/exposure emotion regulation strategy (Hölzel et al., 2011). Emotions, especially negative ones, are simply observed without being reacted upon and by seeing that such emotions can pass away they oftentimes become less threatening. These processes, in turn, facilitate the recovery from unpleasant emotional experiences. Furthermore, as such negative emotions are seen as less threatening, more mindful individuals are less likely to avoid stimuli that could potentially be anxiety-provoking such as conflict situations.

The body of neuropsychology and mindfulness can further aid in explaining as to how mindfulness relates to decreased avoidance. For example, a fMRI study examined the effects of a mindfulness-based stress reduction intervention in reducing emotional reactivity and enhancing emotion regulation with people suffering from social anxiety disorder (Ziv, Goldin, Jazaieri, Hahn, & Gross, 2013). The mindfulness group reported less negative emotions and fMRI showed differential employment of attention regulation brain areas. The mindfulness group showed increased activation in the orienting-attention network, which suggests that mindfulness-based interventions may increase approach behaviour toward anxiety-inducing stimuli. Consequently, in the present study, more mindful participants may have found it easier to accept and expose themselves to the unpleasant emotions associated with conflict and thus refrained from avoiding such situations.

The Relationship between Mindfulness and Wellbeing Outcomes

Mindfulness and SWB. Overall, the proposition that mindfulness enhances wellbeing outcomes, in the form of SWB, was supported. Specifically, mindfulness was associated with higher levels of job satisfaction and more adaptive affect regulatory tendencies by increasing positive affect as well as downregulating negative affect.

Mindfulness and positive affect. As expected, participants of this study who focused on what is happening in the present moment and consciously experienced their emotions experienced more positive affect. This finding is similar to Tugade and Fredrickson's (2007) study found that deliberately paying attention to positive emotions increases, prolongs and maintains these. However, some studies (see Chambers, Gullone, & Allen, 2009; Jha et al., 2010) were not able to detect a positive association between these two constructs. These authors argued that mindfulness may actually lead to greater equilibrium and not enhanced positive affect. In the present sample, this was not the case as deliberately paying attention to one's emotions seemed to augment the participants' mood states. The body of neuropsychology literature can help us in explaining this finding in that participation in a mindfulness intervention can lead to greater left prefrontal activation which is critical in triggering positive emotions as well as approach motivation (Davidson et al., 2003). Furthermore, fMRI research on dispositional mindfulness also detected this effect as higher levels of dispositional mindfulness were associated with left orbitofrontal cortex activation, which has been linked to positive affect (Kong et al., 2016). Consequently, it can be

speculated that more mindful individuals had greater activity in brain areas associated with positive affect and this could have been due to their ability to more consciously experience these emotions.

Mindfulness and negative affect. As has been demonstrated in previous research (see Giluk, 2009; Jha et al., 2010) and which is in line with the findings of this study, mindfulness is of an even greater importance in reducing negative affect. An extensive body of research has pointed to the salutary effects of mindfulness in correcting or repairing unpleasant mood states (see Arch & Craske, 2006; Brown et al., 2007, Creswell et al., 2007). Correlational research (Brown & Ryan, 2003; Giluk, 2009) has been supported and extended by fMRI research showing that mindfulness attenuates amygdala activation (associated with negative motions) whilst simultaneously increasing prefrontal cortical activation (Creswell et al., 2007). This pattern of activation suggests that conceptual-evaluative processes are turned down and that more mindful individuals analyse threatening stimuli in a more unemotional mode. More mindful participants may be able to expose themselves more readily to negative emotional stimuli because they do not attach personal meaning to them and by focusing on such emotions realize that they are also only fleeting events thereby making them less threatening.

Mindfulness and job satisfaction. The findings of this study were in line with previous research (see Andrews et al., 2014; Hülsheger et al., 2012) in that more mindful participants reported greater satisfaction with their jobs. This may be because employees who are focused on the present moment and who are able to perceive situations as they are without habitually attaching personal meaning to it are able to perceive potentially challenging or threatening work situations as less stressful. As habitually conditioned evaluations and other forms of cognitive manipulations are reduced, more mindful individuals may be able to view stressful or challenging work situations in more neutral or benign terms. Thus, by attenuating negative appraisals more mindful participants in this study may have been able to perceive their work situation as more positive.

A further explanation for the study's finding could be based on self-determination theory (Ryan & Deci, 2000). Mindfulness leads to more self-determined behaviour (Glomb et al., 2011) and greater basic psychological need satisfaction (Schultz, Ryan, Niemic, Legate, & Williams, 2015). Study participants that had a heightened awareness and were able to more objectively observe their experiences may have been more likely to reflectively choose values and goals that they had previously only reflexively adopted. Consequently, they were

better able to act in alignment with their chosen values and goals resulting in more self-determined behaviour. This has been supported in research by Brown and Ryan (2003) who found that individuals who were being mindfully attentive to their activities felt more autonomously motivated (i.e. behaving volitionally in accordance with one's values and goals). In turn, goal/value-job congruence has been linked to job satisfaction (Judge, Bono, Erez, & Locke, 2005). More mindful employees may have been more aware of their goals/values and thus chosen companies and jobs that align to these or and were therefore more satisfied with their work.

The relationship between mindfulness, WLB, and SWB. Overall, WLB partially mediated the relationship between mindfulness and SWB, except for its relationship with positive affect.

Mindfulness and WLB. Although this direct relationship was not a focus of this study, the mediation analyses showed that mindfulness was a significant direct predictor of WLB in all three mediation models and it will thus be further explored in the following section. The findings of this study as well as previous research (Allen & Kiburz, 2012; Michel et al., 2014) have pointed towards the promising effect of mindfulness in facilitating WLB. This relationship may be explained because mindfulness acts as a cognitive-emotional segmentation strategy through which the boundaries between the private and work domain can be more effectively separated (Michel et al., 2014). By augmenting self-regulated functioning (e.g. Brown et al., 2007) more mindful individuals may have felt more effective and self-determined in the distinct roles as well as experienced heightened control in shaping their work and private life boundaries resulting heightened satisfaction with WLB.

Mindfulness, WLB, and positive affect. This study did not find support for the mediating effect of WLB in the relationship between mindfulness and positive affect. Though mindfulness directly predicted both WLB and positive affect, WLB was not a significant mediator in the relationship between mindfulness and positive affect. In the absence of past literature examining this exact relationship, theories on hedonic adaptation may aid us in explaining the study's finding. Hedonic adaptation represents a psychological process whereby individuals become accustomed to a positive or negative stimulus resulting in the attenuation of the emotional stimulus over time (Brickma, Coates, & Janoff-Bulman, 1978; Frederick & Loewenstein, 1999; Sheldon & Lyubomirsky, 2012). Furthermore, the rate of adaptation for positive is faster than for negative events (Sheldon & Lyubomirsky, 2012). For instance, Sheldon, Ryan and Reis (1996) found that after having had a bad day, students still

perceived their level of wellbeing lower the next day, whereas after a good day, the positive feelings did not transfer.

Wilson and Gilbert (2008) theorized that this faster and more complete adaptation rate for positive events is due to three distinct antecedent-focused processes. Firstly, in comparison to negative events, positive events are more likely to be missed. Secondly, positive events elicit weaker emotional reactions. And lastly, people must exert less energy and time in order to explain positive events. Whereas positive affect indicates that things are going well, negative affect signals potential danger/unpleasantness which warrants (re-)action. Given that survival is dependent upon attention to dangers as opposed to focusing on chances for positive experiences, the negative-positive asymmetry in adaptation has adaptive advantages (Sheldon & Lyubomirsky, 2012; Wilson & Gilbert, 2008). With regards to the present study it could thus be argued that more mindful participants experienced more balance with their work and private roles. Yet, this did not translate into more positive feelings because they hedonically adapted to the experience of having achieved a satisfactory balance. They may have accustomed themselves to view this positive balance as the norm and thus did not exhibit higher levels of positive affect.

Mindfulness, WLB, and negative affect. WLB was found to partially mediate the relationship between mindfulness and negative affect. This is an important finding as it has been demonstrated that strategies which limit or shorten the experience of negative affect have the largest positive impact on overall wellbeing (Larsen, 2009). Role balance theory (Marks & McDermid, 1996) may aid us in explaining the results of this study. Mindfulness and its associated present moment awareness enables an individual to fully immerse him-/herself with attentiveness and care in each role which contributes to a perceived balance across multiple roles (Allen & Kiburz, 2012). According to role balance theory, the ability to engage in and attend to whatever role one is performing at a given time leads to decreased stress and depression (Marks & MacDermid, 1996). By cultivating such an attitudinal flexibility, stress associated with ruminating about one role while performing another role is decreased leading to reduced negative affectivity. Thus, more mindful participants may have found it easier to detach from negative events in one role which engaging in another role, thereby, enhancing the perception of WLB. The detachment from negative events and satisfaction with one's WLB, in turn, may have decreased the occurrence of negative emotions for study participants.

Mindfulness, WLB, and job satisfaction. The results of this study showed that WLB partially mediated the relationship between mindfulness and job satisfaction. Conservation of resources theory (Hobfoll, 1989) can aid us in explaining this finding. This theory holds that people attempt to gain and maintain resources, when these are lost or threatened an individual will experience stress. Time and energy have been referred to as the most important resources that individuals need to effectively juggle work and private roles (Allen & Paddock, 2015). When these resources are lost due to work-family conflict, an individual will experience poor job as well as life satisfaction (Matthews, Wayne, & Ford, 2014). More mindful study participants may have been able to more readily determine when it is best to undertake what task which could have helped them in completing their tasks more effectively. Efficiency in both work and private life roles, in turn, may have increased their liking for their job. Secondly, mindfulness impacts the way people perceive time (Allen & Paddock, 2015). Participants higher in mindfulness may have been more focused on the present moment, which has been linked to an expanded perception of time availability (Kasser & Sheldon, 2009). Thus, by altering time perception, individuals perceived that they had sufficient time to fulfil the demands and tasks of both domains leading to greater satisfaction with WLB and enhanced job satisfaction.

Implications of the Study

Theoretical implications. Theoretically, this study contributes to existing research in three ways. First it extends the literature on the outcomes of mindfulness in the workplace context, for which there is limited literature. This is of great importance given that scholars have noted that there is still a paucity of empirical research on the consequences of mindfulness in a workplace context (Dane, 2011; Reb et al., 2013). Second, it furthers our understanding of the mechanism at play in the relationship between mindfulness and SWB, specifically the mediating role of WLB. WLB partially mediated the relationship between mindfulness and SWB, except for positive affect. This is an important finding given that mindfulness research has been criticized for not paying enough attention to examining potential mechanisms by which mindfulness exerts its positive influence on wellbeing outcomes (Miksch, Lindeman, & Varghese, 2015; Sedlmeier et al., 2012). In addition, previous research on the work-family interface has primarily been focused on stressor-strain and role conflict theories (Allen & Kiburz, 2011). The study along with a few others (see

Allen & Kiburz, 2011) show the theoretical link between mindfulness and other work-family constructs (see Allen & Paddock, 2015). Third, this study to the researcher's knowledge, is the first to examine mindfulness in its relation to distinct conflict management strategies and thus furthers our theoretical and empirical understanding of this relationship.

Lastly, this study raises certain concerns with regards to the measurement of mindfulness. Previous research on mindfulness in the workplace has extensively relied on utilising the MAAS in order to operationalise mindfulness. Yet, the present study found only small correlations between the MAAS and the level of informal and formal mindfulness practice of participants (see Table 12). This might be an indication of low content validity of the MAAS (for review see Grossman, 2011) or differential understanding of items across mindfulness novices and experts. Researchers examining mindfulness in the workplace should potentially consider employing a different measure to operationalise the construct.

Managerial implications. The findings of this study have several important practical implications for companies. First, given that the workplace changes of the past decades have been accompanied by declining employee wellbeing and performance decrements as well as more conflict-laden relationships (Deve & Cooper, 2014), it is of great importance to find new and innovative solutions to these issues. By investigating an individual difference variable that has been found to be amenable to training, mindfulness could be a new tool to tackle such problems. The findings of this study suggest that mindfulness may be especially effective in augmenting employee wellbeing and could increase the use of successful conflict management strategies. Thus, the implementation of a mindfulness programme may be warranted if the company aims to enhance the wellbeing of their employees or strives to achieve a more harmonious work climate through better conflict management. By changing the way in which employees regulate their attention, employees could potentially enhance their wellbeing without engaging in drastic changes such as finding a new job, changing careers or organisations.

Secondly, it was established that WLB may partially mediate the relationship between mindfulness and SWB. This is an important finding given that work-family interventions have to date been primarily focused on organisational policies such as the provision of flexitime or family-supportive supervision as a means to aid employees manage their work and private demands (Allen & Kiburz, 2012). Less attention has been given to individual cognitive strategies in the promotion of overall WLB. Given that this study established that mindfulness could be a tool to enhance the experience of WLB, organisations may consider a

two-pronged approach. By providing situational-based methods (e.g. flexitime) along with methods that cultivate mindfulness, optimally effective results could be achieved.

Lastly, specific recommendations can be provided to companies who are interested in offering a mindfulness-based programme to their employees. Firstly, the programme should be designed in a way that aligns with organisational goals and provides specific suggestions and hands-on applications of how mindfulness can be incorporated and improve the workday. This has been found to facilitate the transfer from mindfulness-based workshops to its application at the workplace and thereby increases the interest and acceptance of mindfulness (Reb &Choi, 2015). Secondly, an important success factor relates to gaining the buy-in of supervisors and their support of employees who decide to take part in the programme. This can take the form of providing physical spaces for the daily mindfulness practice, individually coaching supervisors and establishing a supportive group culture that facilitates the sharing of knowledge. Furthermore, Reb and Choi (2015) suggested that companies should choose programme ambassadors who keep the interest and motivation high, given that workshops oftentimes only take place once a week but mindfulness needs to be practiced every day. Furthermore, they found that employee buy-in can be enhanced if the scientific findings concerning the benefits of mindfulness are elaborated on and the programme is presented in a secular way that avoids associations with Buddhism and spirituality. By presenting mindfulness as mental training, it becomes more accessible to a wider group of people.

Despite the many benefits that mindfulness training has to offer, it should be noted that such programmes do not tackle the underlying systemic features that could have caused employee ill-health, low productivity, or stress. It is therefore important that companies do not implement mindfulness programmes without a careful consideration of the root causes and do not prescribe it as a self-help technique that could potentially reinforce those roots.

Limitations and Suggestions for Future Research

The following section notes some limitation of the present study and offers several recommendations for future research. The first limitation of the study pertains to the observational and cross-sectional nature of the design, which does not allow causal interpretations of the results presented nor discern time-lag (Stone-Romero, 2011). As the objective of this study was to evaluate the relationships between mindfulness and various

workplace outcomes rather than establish causal relationships and their time-stability, this design was chosen. However, future research could make use of mindfulness interventions and longitudinal studies in a workplace context to determine its effects on workplace outcomes and examine how mindfulness levels and its associated outcomes change over time. Specifically, it may be interesting to conduct an intervention study whereby Good et al.'s (2016) framework is compared between two different groups, namely lay mindfulness students and those with mindfulness experience to get a better understanding of the framework and how it applies across groups. Additionally, qualitative research could provide a more contextualised understanding of the mindfulness-workplace outcome inter-relationships.

A further design issue is that this research utilised self-report data from the same source, which is a potential source of common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). While the provision of anonymous answers and the low levels of evaluation apprehension weaken the potential of common method bias (Podsakoff et al., 2003), the data is self-reported which could have inflated some of the correlations by introducing a variety of systematic response tendencies (Sherill, 2008). The very high mean of task performance (M = 6, SD = .64, N = 211) in the present study could have been an indication that self-serving bias was present. Indeed, past research has demonstrated that when respondents rate their own performance it is likely to be inflated (Hedemeier & Moser, 2009). Future studies may thus consider incorporating more objective measures, utilize multiple sources such as supervisor or co-worker ratings, or implicit or behavioural measures.

Another limitation pertaining to the study's design concerns the composition of the sample. The sample appeared to come mostly from the advertising/marketing industry (52.1%) and predominantly consisted of female respondents (66.4%). The skewed demographic characteristics of the present sample could have been due to the fact that a non-probability sampling technique was selected. Selection bias could have been introduced limiting the generalisability of the results (Ellenberg, 1994). Yet, given the time and budgetary constraints of the study a convenience sampling method was deemed appropriate. Furthermore, it was attempted to gain a more heterogeneous and representative sample by contacting various organisations within South Africa directly. Having said that, in future, researchers should make use of probability sampling techniques to obtain a more representative sample. It is also suggested that researchers examine Good et al.'s (2016) framework as it applies to distinct industries. This may further our understanding of the

framework and allow us to see whether it is more appropriate for certain industries over others.

Lastly a further limitation could stem from the conceptualisation and measurement of mindfulness. The present study employed the most widely used mindfulness measure (Grossman, 2011), the MAAS (Brown & Ryan, 2003), to conceptualise mindfulness as a single-faceted trait which main feature is receptive attention and awareness. This operationalisation has been criticized (for a review see Grossman, 2011) for not adequately reflecting and oversimplifying the complexity of original definitions of mindfulness (Chiesa, 2012). Consequently, a multiplicity of measures has been developed that include a variety of facets of mindfulness (e.g. Five Facet Mindfulness Questionnaire – observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience; Baer et al., 2006). However, these multifaceted measures of mindfulness oftentimes do not overlap in their inclusion/exclusion of certain components over others (Bergomi, Tschacher, & Kupper, 2013). Accordingly, correlations amongst different measures were found to be relatively low ranging from only .21 to .67 (Bergomi et al., 2013), hindering comparison of results from studies employing different scales (Brown et al., 2007). Future research could thus replicate the present study utilising a different, multifaceted, conceptualisation of mindfulness in order to determine the generalizability of the results. Additionally, using qualitative and quantitative designs, researchers should assess the content, structure as well as the psychometric properties of the distinct mindfulness measures with the aim of developing/identifying one primary instrument.

A further point related to the measurement of mindfulness concerns the validity of the scale items with regards to their understanding by different populations (Grossman, 2011). Grossman (2011) indicated that oftentimes items in mindfulness measures are interpreted very differently by people familiar and unfamiliar with mindfulness meditation. Indeed, past research has found that non-meditators sometimes score at the same level on mindfulness scales as experienced meditators (see MacKillop & Anderson, 2007). This is because respondents inexperienced with the concept of mindfulness may be less aware of their ability and lack of mindfulness than meditators (Reb et al., 2015). The present research attempted to examine as questions were included pertaining to whether employees had previously participated in mindfulness programmes, how often they practiced mindfulness meditation (formal practice) and how frequently they attempted to bring mindfulness into their everyday life (informal practice). Correlations between the MAAS and the amount of informal and

formal practice were positive and significant, yet low (formal practice: $r = .18$, $p < .01$, $n = 211$; informal practice: $r = .27$, $p < .01$, $n = 211$). Given the issues associated with item interpretation, future research would greatly benefit from developing semantically clear items that are less complex. Furthermore, qualitative studies could examine how people with different levels of mindfulness meditation experience understand various items, thereby contributing to the development and compilation of uniformly interpreted items across groups. Differential item functioning analysis (Walker, 2011) could be another avenue to advance the knowledge about the uniformity of item understanding across groups.

The study did not find a relationship between mindfulness and job performance outcomes which is in contrast to extant literature in this area. These findings may have not only been attributable to design limitations (cross-sectional, self-report data) and the employed operationalisation of mindfulness but also due to the fact that certain moderating conditions were not assessed. Dane (2011) suggested that mindfulness may only enhance task performance in dynamic workplaces and if employees have a certain level of task expertise. Future research should thus explore factors such as the workplace context (dynamic/static) and employee task expertise in order to determine their influence on the mindfulness-task performance relationship. Secondly, this study did not find support for a positive influence of mindfulness on OCB-I in a workplace setting. Again, the majority of previous research had not examined the effects of mindfulness on prosocial behaviour in a workplace context but rather in the area of romantic relationships (e.g. Barnes et al., 2007; Wachs & Cordova, 2007) or with student samples (Cameron & Fredrickson, 2013). In the workplace, however, many other factors such as impression management (Grant & Meyer, 2009) may affect this relationship. Qualitative studies could shed further light on this relationship by examining as to whether the motives for engaging in OCB-Is differ amongst mindfulness novices and experts and what organisational factors could exert and influence on this relationship.

Secondly, this study is to the researcher's knowledge the first to examine mindfulness in its relation to distinct conflict management strategies. It was found that mindfulness could increase the likelihood that employees utilise problem solving in order to approach workplace conflicts. In the absence of past research, it was argued that this relationship could be explained by the fact that more mindful individuals may experience optimal self-esteem and higher levels of empathy and were therefore able to focus not only on their own needs and interests but also on those of the other party. In order to advance our theoretical understanding of this relationship, researchers could thus explore these variables as mediating

mechanisms in order to deepen our knowledge. Especially the association between mindfulness and optimal self-esteem warrants further research as it could also aid us in explaining the negative relationship between mindfulness and yielding. It was also established that mindfulness decreased the use of avoiding as a conflict management strategy, which is especially important as it has been found to be the least effective conflict management strategy (Rahim, 2002). Lastly, it was established that mindfulness was not related to forcing in the present study. This, however, could have been due to the cultural context in which the study took place. It would be interesting to see whether this relationship would be different in another country or assess the value systems of participants in order to further our understanding.

CONCLUSION

Recently, companies have turned to mindfulness-based programmes to deal with the increased emotional and mental demands that have been placed on employees caused by changes in the nature of work and employment. However, research on the effectiveness of mindfulness in a workplace context is still in its infancy. By empirically testing aspects of a framework developed by Good et al. (2016) this research attempted to shed further light on the relationship between mindfulness and key workplace outcomes, thereby addressing this gap in the literature. Furthermore, this research answered calls for the study of mechanisms through which mindfulness exerts its positive influence on worker wellbeing.

This study provided initial evidence that mindfulness may be especially effective in facilitating the use of positive conflict management strategies and in enhancing employee subjective wellbeing through increased work-life balance. From an employer's perspective, the introduction of a mindfulness-based programme may thus be warranted if the company aims to enhance the wellbeing of their workers or strives to achieve a more harmonious work climate. By changing the way in which employees regulate their attention, their wellbeing can be enhanced without them having to engage in drastic changes.

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APPENDIX A

A list of the measures that were included in this study.

Mindful Attention Awareness Scale

Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience.

Please answer according to what really reflects your experience rather than what you think your experience should be. Please treat each item separately from every other item.

1. I could be experiencing some emotion and not be conscious of it until some time later.
2. I break or spill things because of carelessness, not paying attention, or thinking of something else.
3. I find it difficult to stay focused on what's happening in the present.
4. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.
5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.
6. I forget a person's name almost as soon as I've been told it for the first time.
7. It seems I am "running on automatic", without much awareness of what I'm doing.
8. I rush through activities without being really attentive to them.
9. I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.
10. I do jobs or tasks automatically, without being aware of what I'm doing.
11. I find myself listening to someone with one ear, doing something else at the same time.
12. I drive places on "automatic pilot" and then wonder why I went there.
13. I find myself preoccupied with the future or the past.
14. I find myself doing things without paying attention.
15. I snack without being aware that I'm eating.

Task Performance Scale

Below is a collection of statements about your performance at work. Using the 1-5 scale below, please indicate the extent to which these statements apply to your work experience. Please answer openly and truthfully.

1. I appear suitable for a higher level role.
2. I am competent in all areas of the job, and handle tasks with proficiency.
3. I perform well in the overall job by carrying out tasks as expected.
4. I plan and organize to achieve the objectives of the job and meet deadlines.
5. I achieve the objectives of my job.
6. I meet my criteria for job performance.
7. I demonstrate expertise in all job-related tasks.
8. I fulfill all the requirements of my job.
9. I can manage more responsibility than typically assigned to me.

Organisational Citizenship Behaviour- Individual

Please respond truthfully and indicate how frequently you perform each of these behaviors.

1. Willingly give your time to help others who have work-related problems.
2. Help others who have been absent.
3. Share personal property with others to help their work.
4. Assist others with their duties.
5. Show genuine concern and courtesy toward coworkers, even under the most trying business or personal situations.
6. Adjust your work schedule to accommodate other employees' requests for time off.
7. Go out of the way to make newer employees feel welcome in the work group.
8. Give up time to help others who have work or non-work problems.

The Dutch Test for Conflict Handling (DUTCH)

Read each of the statements below and select the response that you believe best reflects your position regarding each statement.

When I have a conflict at work, I do the following:

Yielding

1. I give in to the wishes of the other party.
2. I concur with the other party.
3. I try to accommodate the other party.
4. I adapt to the other parties' goals and interests.

Forcing

5. I push my own point of view.
6. I search for gains.
7. I fight for a good outcome for myself.
8. I do everything to win.

Problem solving

9. I examine issues until I find a solution that really satisfies me and the other party.
10. I stand for my own and other's goals and interests.
11. I examine ideas from both sides to find a mutually optimal solution.
12. I work out a solution that serves my own as well as other's interests as good as possible.

Avoiding

13. I avoid a confrontation about our differences.
14. I avoid differences of opinion as much as possible.
15. I try to make differences loom less severe.

16. I try to avoid a confrontation with the other.

Positive and Negative Affect Schedule – Short Form

Thinking about yourself and how your normally feel, to what extent do you generally feel:

1. Upset
2. Hostile
3. Alert
4. Ashamed
5. Inspired
6. Nervous
7. Determined
8. Attentive
9. Afraid
10. Active

Michigan Organizational Assessment Questionnaire-Job Satisfaction Subscale

Please indicate the degree to which you agree with the following statements:

1. All in all I am satisfied with my job.
2. In general, I don't like my job.
3. In general, I like working here.

APPENDIX B

Survey cover letter

I am inviting you to take part in my Master's research on personal awareness and positive work outcomes.

I need 5 to 10 minutes of your time and only through your participation will I be able to do this research and complete my degree.

By participating in this survey you stand the chance of winning a R1000 cash prize. Please follow the instruction at the end of the survey.

If you have any queries or concerns, please do not hesitate to contact me (Natalie Witschel, wtsnat002@myuct.ac.za, 0794010774) or my research supervisor Dr. Ameeta Jaga (Ameeta.jaga@uct.ac.za).

Thank you in advance for your participation.

PLEASE NOTE: This study has been approved by the University of Cape Town Faculty's Ethics in Research Committee. Your participation in this research is voluntary and you can choose to withdraw at any time. This survey is completely anonymous and you are not required to provide your name or contact details. The data generated will be kept confidential and used for academic research purposes only.

APPENDIX C

Tables used in this study.

Table 4
Factor Matrix for First Round of PAF MAAS

		Factor			
		1	2	3	4
M 1	I could be experiencing some emotion and not be conscious of it until sometime later	**.48**	-.02	-.02	-.13
M 2	I break or spill things because of carelessness, not paying attention, or thinking of something else.	**.46**	-.07	-.14	.25
M 3	I find it difficult to stay focused on what's happening in the present.	**.64**	-.11	-.14	**.52**
M 4	I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	**.58**	-.04	**.57**	.2
M 5	I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	**.49**	-.01	.28	-.18
M 6	I forget a person's name as soon as I have been told it for the first time.	.39	-.2	.14	.02
M 7	It seems I am "running on automatic", without much awareness of what I'm doing.	**.72**	-.23	.15	-.24
M 8	I rush through activities without being really attentive to them.	**.70**	-.26	-.14	-.12
M 9	I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	**.58**	-.29	-.18	-.02
M 10	I do jobs automatically, without being aware of what I'm doing.	**.74**	-.1	-.25	-.21
M11	I find myself listening to someone with one ear, doing something else at the same time.	**.53**	**.34**	.03	-.01
M 12	I drive places on "automatic pilot" and then wonder why I went there.	**.54**	**.36**	.08	-.09
M 13	I find myself preoccupied with the future or the past.	**.59**	.18	.03	.13
M 14	I find myself doing things without paying attention.	**.79**	.2	-.1	-.1
M 15	I snack without being aware that I'm eating.	**.44**	**.4**	-.19	-.05
	Eigenvalue	5.66	1.31	1.14	1.01
	% Variance	37.71	8.76	7.7	6.73
	% Cumulative Variance	37.71	46.47	54.04	60.76

Table 7
First Round of PAF Factor Loadings for the Conflict Management Scale

		Factor			
		A	**PS**	**F**	**Y**
CM 4	I avoid confrontation about our differences.	**.74**	-.1	.01	-.06
CM 8	I avoid differences of opinion as much as possible.	**.61**	-.08	.02	-.14
CM 16	I try to avoid confrontation with the other party.	**.87**	.01	.08	-.01
CM 3	I examine issues until I find a solution that really satisfies me and the other party.	-.13	**.51**	.08	.09
CM 7	I stand for my own and others' goals and interests.	-.17	**.54**	.2	.02
CM 11	I examine ideas from both sides to find a mutually optimal solution.	-.01	**.77**	-.23	-.1
CM 15	I work out a solution that serves my own and the other party's interests as well as possible.	.03	**.76**	.08	.0
CM 2	I push my own point of view.	-.18	.16	**.42**	.18
CM 6	I search for gains.	-.22	-.01	**.51**	-.29
CM 10	I fight for a good outcome for myself.	.07	-.03	**.67**	-.01
CM 14	I do everything to win.	.19	.04	**.45**	.1
CM 1	I give in to the wishes of the other party.	.05	-.15	-.2	**-.58**
CM 5	I agree with the other party.	.04	-.15	.1	**-.67**
CM 9	I try to accommodate the other party.	.04	.18	-.07	**-.50**
CM 12	I try to make differences less severe.	.2	**.37**	.03	**-.41**
CM 13	I adapt to the other parties' goals and interests.	.13	.17	.1	**-.64**
	Eigenvalue	3.52	2.87	1.74	1.25
	% Variance	22.02	17.94	10.87	7.81
	% Cumulative Variance	22.02	39.96	50.83	58.63

Extraction Method: Principal Axis Factoring with direct oblimin rotation. A = Avoiding, PS = Problem Solving, F = Forcing, Y = Yielding.

Table 9
Factor Loadings after First Round of PAF for the Wellbeing Outcomes

		Factor			
		WLB	**JS**	**NA**	**PA**
JS 1	All in all I am satisfied with my job.	.11	**.8**	-.1	-.03
JS 2	In general, I like my job.	-.13	**.86**	-.08	.03
JS 3	In general, I like working here.	.11	**.7**	-.03	-.06
WLB 1	I am able to balance the demands of my work and the demands of my private life.	**.85**	.1	.03	.01
WLB 2	Overall, I believe that my work and private life are out of balance.	**.69**	-.1	-.1	-.03
WLB 3	I balance my work and private responsibilities so that one does not upset the other.	**.81**	.04	-.07	.0
WLB 4	I experience a high level of work-life balance.	**.86**	-.0	.03	.08
WLB 5	I am satisfied with the balance I have achieved between my work and my private life.	**.83**	.05	.05	.01
NA 1	Upset	-.14	-.18	**.48**	-.04

NA 2	Hostile	-.07	-.15	**.49**	-.08
NA 3	Ashamed	.1	.05	**.64**	-.11
NA 4	Nervous	-.9	.01	**.69**	.06
NA 5	Afraid	-.05	-.04	**.79**	.13
PA 1	Alert	.1	-.08	-.03	**.41**
PA 2	Inspired	.08	**.42**	.07	**.38**
PA 3	Determined	-.07	.16	.18	**.65**
PA 4	Attentive	.02	-.05	-.02	**.62**
PA 5	Active	-.06	.05	-.22	**.53**
	Eigenvalue	5.62	2.33	1.9	1.58
	% Variance	31.24	12.95	10.53	8.8
	% Cumulative Variance	31.24	44.19	54.72	63.48

Extraction Method: Principal Axis Factoring with direct oblimin rotation. WLB = Work-life Balance, JS = Job Satisfaction, NA = Negative Affect, PA = Positive Affect.

APPENDIX D

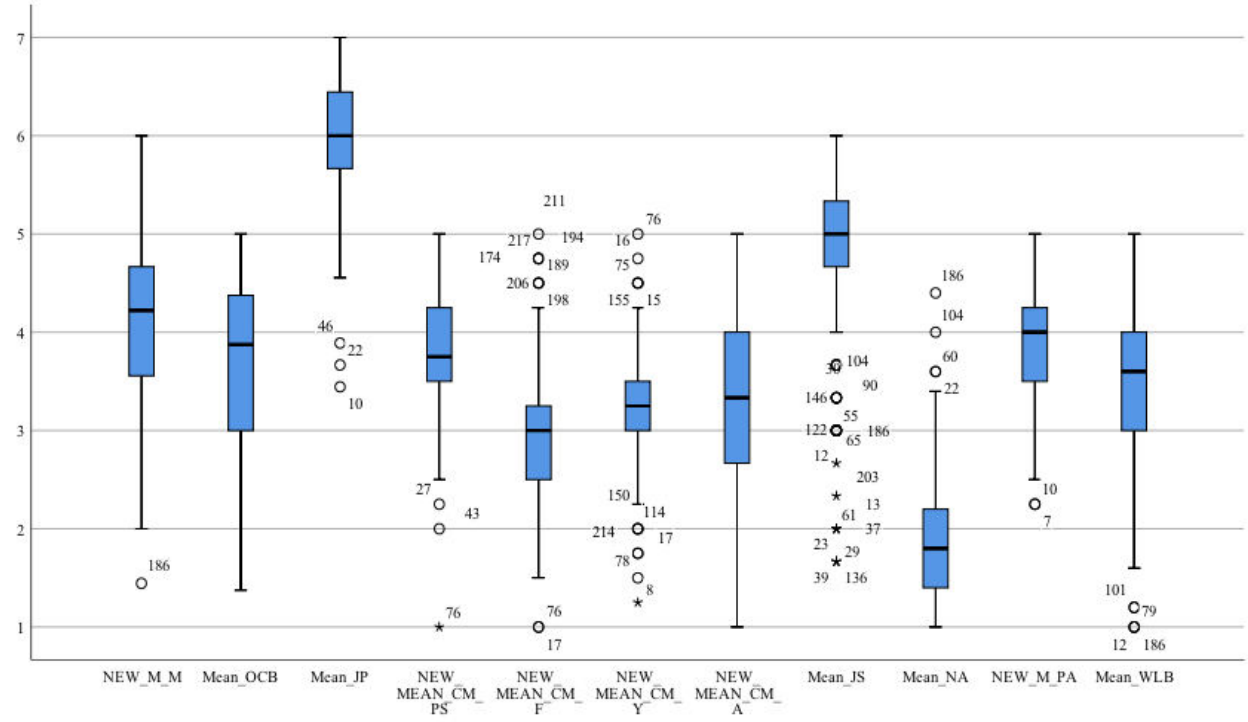

Figure 2. Box-and-whisker plots of summarized variables before extreme cases were removed. NEW_M_M = Mindfulness, Mean_OCB = Individual organisational citizenship behaviours, Mean_JP = Perceived task performance, NEW_MEAN_CM_A = Avoiding, NEW_MEAN_CM_PS = Problem solving, NEW_MEAN_CM_F= Forcing, NEW_MEAN_CM_Y= Yielding, Mean_NA = Negative affect, NEW_M_PA = Positive affect, Mean_JS = Job satisfaction, Mean_WLB = Work-life balance.

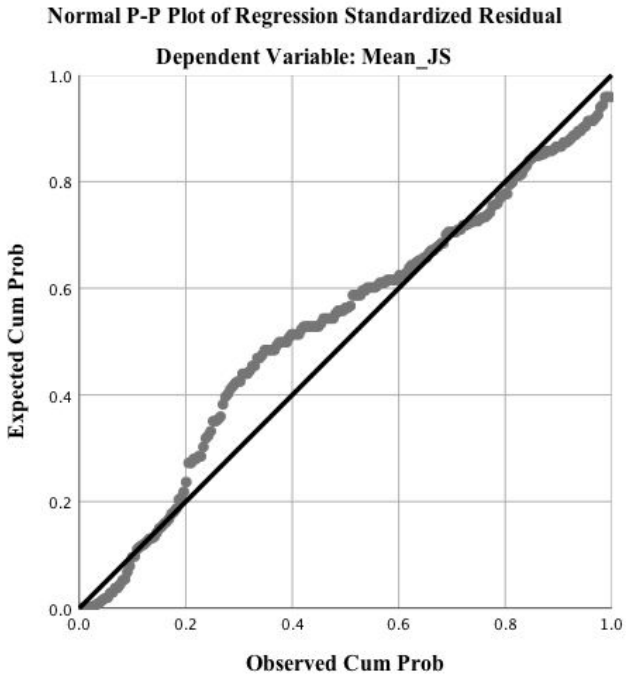

Figure 3. Normal P-Plot of Regression Standardized Residuals Plotting mindfulness against job satisfaction.

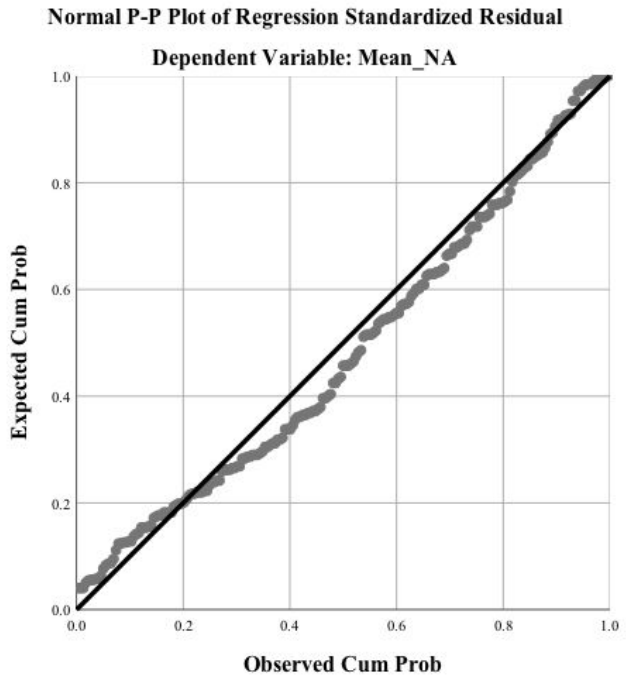

Figure 4. Normal P-Plot of Regression Standardized Residuals Plotting mindfulness against negative affect.

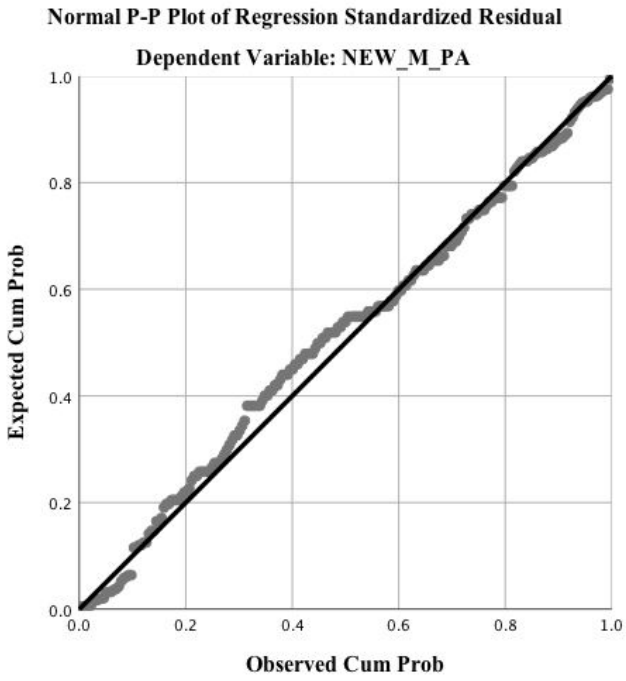

Figure 5. Normal P-Plot of Regression Standardized Residuals Plotting mindfulness against positive affect.

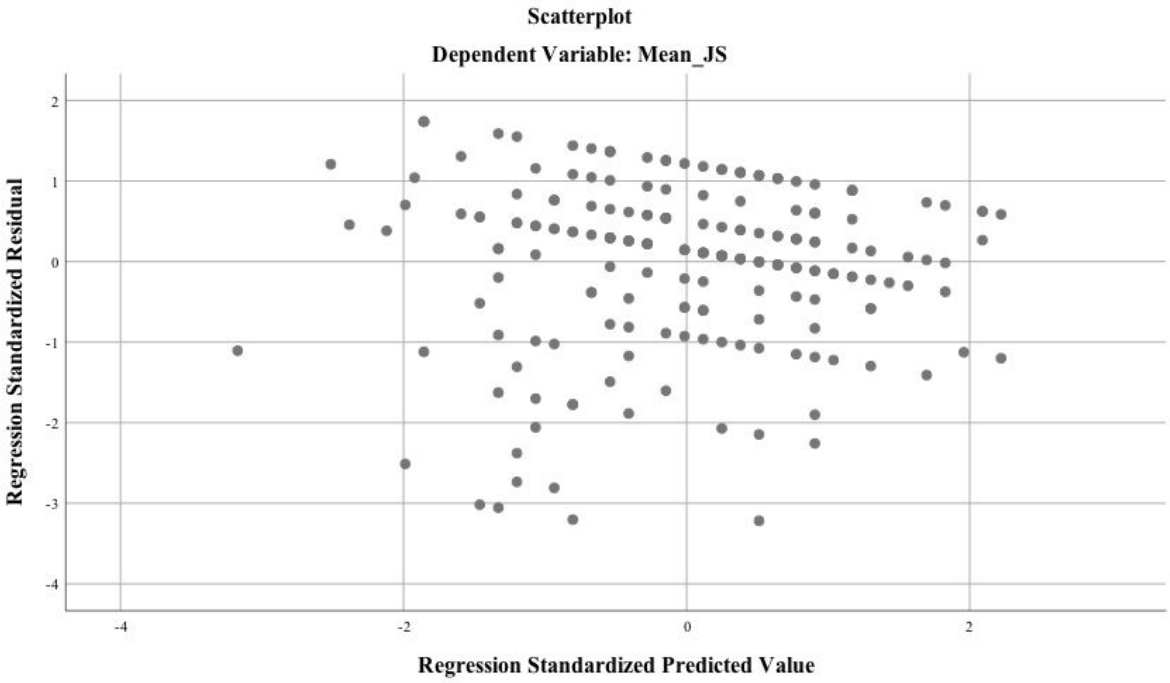

Figure 6. Scatterplot plotting regression standardized predicted values against standardized residuals for mindfulness and job satisfaction.

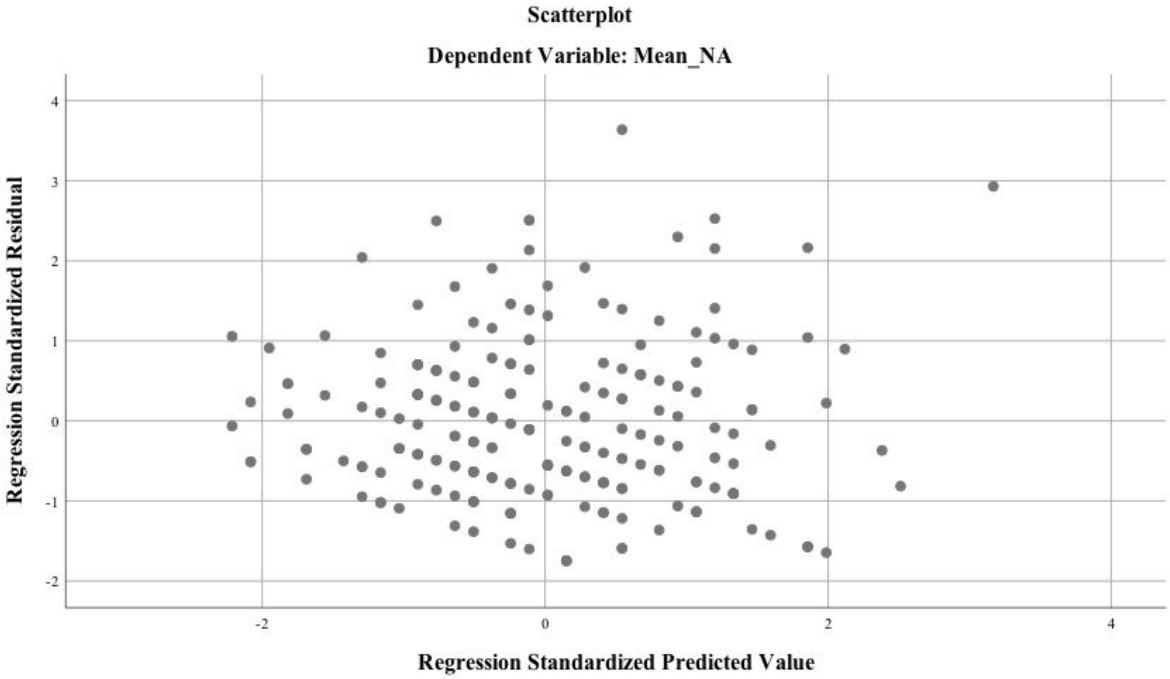

Figure 7. Scatterplot plotting regression standardized predicted values against standardized residuals for mindfulness and negative affect.

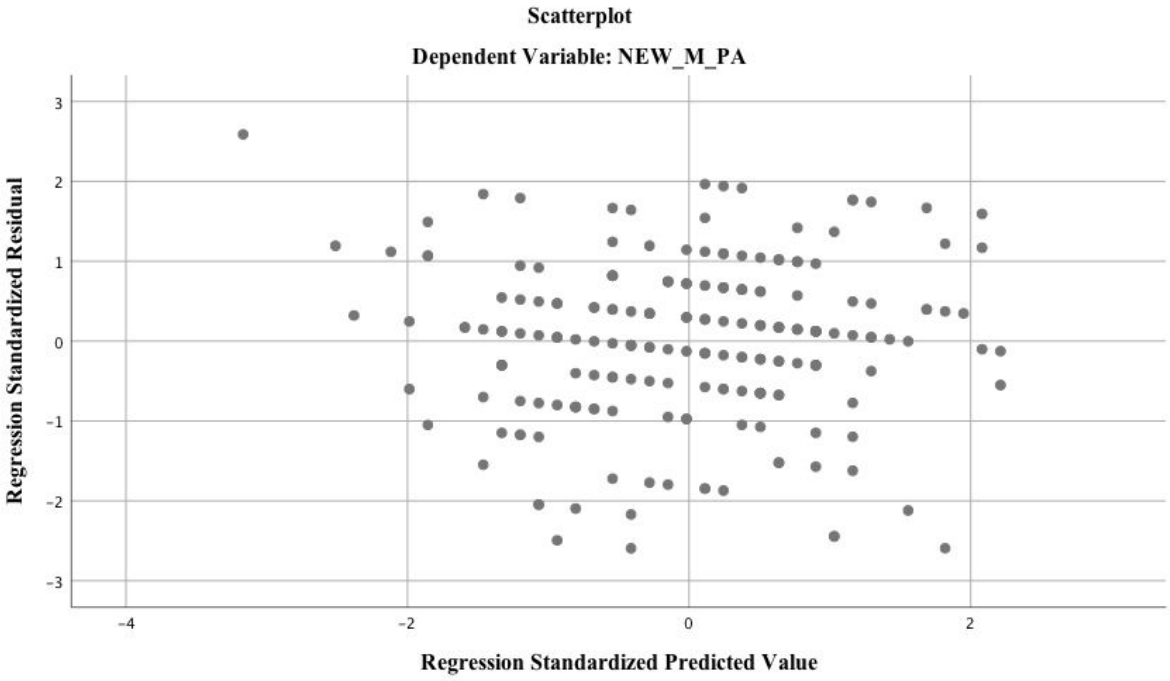

Figure 8. Scatterplot plotting regression standardized predicted values against standardized residuals for mindfulness and positive affect.