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Be well: A systems-based wellness intervention using mindfulness in the workplace – A case study

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Be Well: A systems-based wellness intervention using mindfulness in the workplace. A case study.

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Abstract

Introduction: Healthy work environments are essential in determining improved wellbeing of Australians. Job stress has been identified as a significant factor in psychological distress. This study evaluated the effect of introducing a systems-based workplace wellness program using mindfulness in the workplace.

Methods: The program 'Be Well' was introduced as part of a systems-based approach to workplace health promotion, and evaluated using sick-leave as a proxy for workplace stress, and the Stress-Satisfaction Offset Score (SSOS) to determine degree of change in stress and satisfaction.

Results: There was significant reduction in sick-leave (2014 vs 2012) ($p < 0.001$), and significant improvement in SSOS ($p < 0.05$). Logistic regression analysis identified the program components most predictive of reduced stress and higher job satisfaction.

Conclusion: The impact of systems-based mindfulness workplace wellness intervention, show significant improvements in workers' sick leave and changes to stress and satisfaction scores. This study has implications for sector-wide policy change in the workplace.

Keywords: mindfulness, workplace wellness, systems-based, productivity, absenteeism.

1. Introduction

The study outlined here explores the strategic implementation of an organisation-wide wellness intervention, using a mindfulness framework, 'Be Well at SSI'. The program was developed in response to the findings of a workforce survey at Settlement Services International (SSI), as a system-based approach to managing the demands of this high stress workplace in the human services sector.

The term, human services, is in common usage by various Australian governments at both the Federal and State jurisdictions and refers to a broad range of community services, the portfolio groupings of which vary by jurisdiction and may or may not include primary health. At the time of this study, various organisations in the human services sector were responding to an influx of refugees and people seeking asylum in Australia.

The subject organisation in this study, SSI, was affected more than most; as during its formative growth it was almost solely focused on addressing the settlement needs of this burgeoning group of vulnerable arrivals. The urgent requirements of this growing population contributed to a high-demand workplace, which can generate significant stress and anxiety for employees (Barratt-Pugh & Bahn, 2015). These factors potentially impact on employees' health and sense of wellbeing (Noblet, Graffam, & McWilliams, 2008).

Therefore, the Be Well program of mindfulness-based interventions was implemented to address these emerging workplace stressors through a systems-based approach. The implementation of the program was supported by changes to organisational culture and strategic policy. Elsewhere, workplace health promotion programs have tended to target individuals and their coping skills (LaMontagne,

Keegel, & Vallance, 2007), without addressing up-stream stressors, such as high workloads and organisational culture and frameworks (Safe Work Australia, 2013).

A fundamental driver of SSI's operational strategy is a commitment to supporting the performance capability and wellbeing of employees (SSI, People & Organisation Development Strategy, 2016).

In the context of the systems approach championed by Australian researchers La Montagne, et al., (2007), SSI's commitment is expressed through various strategic policy (primary) interventions, including:

- Performance and Development (People and Culture Unit)
- Case Management Supervision (Clinical Practice Unit)
- Work Health and Safety (People and Culture Unit)
- Be Well at SSI (Worklife Wellness and SSI's People and Culture Unit)

At SSI, each of these inter-related commitments moves from strategic policy (primary intervention) into operational practice (secondary interventions) via structured programs and along referral pathways to remedial or therapeutic practice (tertiary interventions). The purpose and rate of staff participation in tertiary interventions, such as the Employee Assistance Program, in turn, inform the continuous improvement of policy and practice across the organisation.

Be Well, the focus of this study, raises the profile of wellness and helps to develop self-health management skills across SSI's workforce. It aims to develop coping strategies as well as positive lifestyle choices and is embedded in SSI's 2016 organisational development strategy. The evaluation of this program, in reducing stress and improving satisfaction, is the subject of this paper.

1.1. Job stress and its effects.

In general, healthy work environments are an essential ingredient in improving the health and wellbeing of Australians (Noblet et al., 2008; Noblet & LaMontagne, 2006; Pricewaterhouse Coopers, 2010). Job stress has been identified as both a significant risk factor in mental health conditions common amongst the adult population (Blake, Zhou, & Batt, 2013; Cleary et al., 2014; Gupta, 2008; Stansfeld & Candy, 2006) and as a contributor to physiological conditions, such as cardiovascular disease, and other chronic conditions (LaMontagne et al., 2007). Mental and physical health conditions of employees impact on their productivity, which can be viewed in terms of absenteeism and presenteeism (Pricewaterhouse Coopers, 2010). Research by Caverley (2007) found that the relative frequency of various physical and psychological symptoms was strongly correlated with both absenteeism and presenteeism. Ailments commonly included headache, migraine, back and neck pain, cold and flu, respiratory, and symptoms of anxiety and depression. The type and severity of symptoms were consistent across workers who chose to attend or not attend work (Caverley, Cunningham, & MacGregor, 2007).

Given the high workforce participation of adult Australians (ABS, 2017), the workplace is recognised as an important setting in which to address the rising rates of ill health, both physiological and psychological among the population. The impact of mental stress is significant. Over the past 10 years, mental stress compensation claims have constituted an average of 95% of all mental disorder claims and constitute the most expensive form of workers' compensation claims due to the often lengthy periods absent from work, and the substantial economic impact from lost

productivity in the workplace (Safe Work Australia, 2013). Additionally, it is reported that 70% of workers who report some experience of work-related mental stress do not apply for workers' compensation (ABS, 2010), which suggests a significant impact on lost productivity that remains unaccounted. Results from a major Australian study commissioned by Medibank Private, "show a clear link between a worker's health and productivity, with the healthiest employees nearly three times more effective than the least healthy" (Medibank Private, 2005). This report also estimates related financial costs of absenteeism to be \$7 billion annually, and of presenteeism at around \$25.7 billion annually (Medibank Private, 2005; Pricewaterhouse Coopers, 2010). Additionally, stress-related presenteeism and absenteeism are estimated to cost the Australian economy \$14.8 billion per year in lost productivity (Medibank Private, 2008).

1.2. Workplace health, engagement and productivity

In research reported by Kuykendall (2015) and Bakker (2011) employee self-reported wellbeing at work is shown to be positively correlated with physiological health (Bakker, Albrecht, & Leiter, 2011; Kuykendall, Tay, & Ng, 2015). One marker of wellbeing is the concept of work engagement, which has been defined as "... a positive, fulfilling, work related state of mind that is characterised by vigour, dedication, and absorption" (Schaufeli & Bakker, 2010). Engagement increases productivity by way of a positive relationship to health and performance. Employees who are engaged report less psychosomatic illnesses, and have better self-rated health (Bakker, 2009; Bakker et al., 2011). Engaged workers also show positive emotions that build enduring psychological resources (Fredrickson, 2001). Additionally, these workers have a capacity to create their own personal resources,

including optimism, self-efficacy, resilience and an active coping style (Fredrickson, 2001).

Bakker and colleagues (Bakker et al., 2011) discuss the drivers of engagement as being increased social support, autonomy of job role, provision of opportunities for learning and development, as well as performance feedback from managers.

Work engagement has been found to be facilitated by resilience, indicating that engaged workers can more effectively adapt to changing environments. These workers are not only less susceptible to anxiety, but also show a positive engagement with the work and have an openness to experience (Bakker, 2009). Resilience is thought to buffer the impact of high emotional demands and maintain engagement when job demands are high (Bakker, 2009; Bakker, Schaufeli, Leiter, & Taris, 2008).

Psychological resilience has been characterized by (1) the ability to bounce back from negative emotional experiences and by (2) flexible adaptation to the changing demands of stressful experiences (Tugade & Fredrickson, 2007). The capacity to regulate positive emotions is both unconscious and conscious. The experience of positive emotions arises as an unconscious result of physiological stimuli; and, importantly in this context, the quality of that experience and the capacity to consciously apply it, is able to be cultivated in everyday life (Tugade & Fredrickson, 2007).

In summary, engaged workers cope well with their demands, have a capacity to mobilise their resources, have better resilience, stay healthy and perform well (Bakker, 2009). Self-reported wellbeing, as a predictor of health, is modifiable, and therefore can be targeted in workplace interventions (Tay & Kuykendall, 2013).

1.3. The need for a systems-based approach to workplace health promotion.

Theoretical underpinnings.

Workplace wellness programs have been shown to: significantly improve measures of physiological and psychological wellbeing (Bradley, Horwitz, Kelly, & DiNardo, 2013); reduce costs associated with stress (Pricewaterhouse Coopers, 2010) and ill health (Blake et al., 2013; Bolnick, Millard, & Dugas, 2013; Makrides et al., 2011), and improve performance, productivity and turnover of staff (Bradley et al., 2013; Dane & Brummel, 2014; Gupta, 2008). However, the issue that remains is that many Australian and international workplace health promotion programs target individuals and their coping skills (LaMontagne et al., 2007), without addressing up-stream stressors including high workloads and organisational culture and frameworks (Safe Work Australia, 2013). These interventions focus on individualised approaches, such as stress management classes or smoking cessation, without altering the workplace or its culture. In failing to address the systemic stressors, evidence suggests that the cumulative effects of each individualised program is less than the sum of interventions, providing diminishing returns on each additional intervention (Beyond Blue, 2014). This has implications for employee participation, time requirements, prioritising and so forth, highlighting the need for a more comprehensive approach.

Australian researchers, La Montagne and colleagues (2007), proposed a theory of a comprehensive, systems-based approach to managing job stress and its effects, in which targeting primary prevention and integrating secondary and tertiary management is essential. In their theoretical model, primary prevention is proactive, with the goal to reduce potential risk factors and/or their impact. Secondary management is ameliorative, the goal of which is to equip workers with knowledge,

skills and resources to help them cope better with stressful conditions. Tertiary management is reactive, and its goal is to treat, compensate and rehabilitate workers with lasting symptoms or disease (LaMontagne et al., 2007).

A systemic approach is also proposed in a 2010 report on national developments, commissioned by Medibank Health Solutions, an affiliate of a major insurance company, titled: Workplace Wellness in Australia, (Pricewaterhouse Coopers, 2010). It describes the evolution of workplace wellness in Australia, potential barriers and enablers for growth and sustainability. The report issues a 'Call to Action' for governments, insurers, employers and employees to make wellness 'business as usual' by integrating it within business/operational strategy. An earlier study (Noblet, 2003) suggests that to achieve sustained improvements in the health and productivity of employees, effective programs must facilitate organisational change at the highest management level for effective integration. Therefore, the investigation of appropriately comprehensive approaches to workplace wellness programs is warranted.

Research by Baptiste (2008) suggests a clear link between employee wellbeing and enhanced productivity at work. This research found that management relationships, support and employees' trust predicted wellbeing at work. By giving effect to the business case for employee wellbeing at work, managers can complement more traditional methods of improving employee productivity, which in turn enhance organisational effectiveness. Further, this research posits that failure to evaluate employee wellbeing comes at the cost of organisational sustainability, and employee and societal wellbeing (Baptiste, 2008).

1.4. How systemic is SSI's Be Well Program?

According to the systems approach (LaMontagne et al., 2007) summarised above, interventions can be understood in three categories, primary, secondary and tertiary. This implies primary as an upstream prevention strategy, secondary as individual coping strategies, and tertiary as rehabilitation or treatment.

Primary prevention in work health promotion is aimed at preventing exposure to upstream stressors in the workplace. At SSI, the original intention of conducting a workforce-wide health and wellness survey was, in part, to inform the new CEO's organisational development and operational strategy. As a result of the survey, SSI commissioned Worklife Wellness to develop the Be Well program as a workplace wellness intervention, the goals and strategies of which are fully supported by the executive. This intervention is described below. Staff and management continue to be consulted at regular intervals on matters relating to their ongoing needs and interests and satisfaction with the program. Consultation occurs by way of workforce surveys (refer to section 5.3) and participant surveys (refer to section 5.5); regular management briefings that draw on operational strategy; and monthly meetings of the staff-run Be Well Committee, who also inform the design and implementation of the program and ensure it continues to be highly relevant to SSI's workplace culture.

The preventative narrative of wellness is promoted and sustained at SSI through tailored communications campaigns that link to the organisation's operational strategy and improve the targeting of messaging. The program's tagline, "Building wellness together", encapsulates the wellness culture, which in turn provides the impetus for positive lifestyle choices and workplace behaviours. Importantly, the Be Well Program is embedded in SSI's employee performance management framework

to guide supervisory conversations about positive behaviour change as well as the development of relevant leadership and relationship capabilities throughout the organisation (Baptiste, 2008).

The aim of secondary interventions is to help workers develop better coping skills and be able to respond more appropriately to stressful situations. Strategies include skills development training in areas such as stress management, healthy eating and exercise programs, as well as interpersonal communications and personal productivity. All training is underpinned by the mindfulness strategies outlined in Figure 1.

The reactive nature of tertiary interventions with a treatment or rehabilitative focus suggests more therapeutic approaches, such as external Employee Assistance Programs. Whilst the Be Well program at SSI does not directly provide such services, referral pathways are promoted in seminars and induction strategies. Consistent with the systems approach developed by La Montagne and his colleagues (LaMontagne et al., 2007), organisational information about the Be Well program and activities in this category inform the policies and programs of higher level interventions, such as clinical supervision, leadership development and work health and safety strategies. SSI ensured that all executive and management staff attended the Be Well program and supported and accommodated the systemic implementation of strategies promoted by the program. Managers' performance reviews were measured with regard to use and support of the program and addressing the upstream factors that facilitated the implementation of strategies. This iterative information flow is facilitated via various methods, including personal stories and testimonials; close collaboration between the consultants and the People and Culture team; regular executive

briefings; as well as the aforementioned integration of Be Well into SSI's performance management framework.

In summary, the Be Well Program at SSI integrates across all three levels of the systems approach to health promotion programs (LaMontagne et al., 2007; Noblet & LaMontagne, 2006).

1.5. Mindfulness and wellness

Mindfulness is closely associated with the ancient contemplative traditions of yoga and Buddhism, both of which draw distinctions between the state of mindfulness in meditation, and is defined as the ability to be mindful in a time limited context (Jislin-Goldberg, Tanay, & Bernstein, 2012); and includes the practise of mindfulness, that is, learning to focus attention on observing the present experience, without judgement (de Manincor, Bensoussan, Smith, Fahey, & Bouchier, 2015).

Ultimately, the basic movement of mindfulness, which is common to both yoga and Buddhist traditions, involves anchoring one's attention, keeping it there, noticing when the mind wanders, bringing it back and starting again (Goleman, 2013). Active meditation techniques are useful in giving the mind something to do or focus on e.g. counting, repeated words or phrases, visualisation, and guided meditations (de Manincor et al.); as well as breathing and body scans, loving-kindness, and observing-thought meditations (Kok & Singer, 2016). A further range of related tools and techniques are outlined in Figure 1.

In recent years, interventions using mindfulness-based techniques have been shown to reduce stress (Asuero et al., 2014), reduce negative feelings and improve resilience and coping (Dane & Brummel, 2014; Grossman, Niemann, Schmidt, & Walach, 2004).

The benefits of mindfulness to mental health are well established in the literature (Bohlmeijer, Prenger, Taal, & Cuijpers, 2010; Cook-Cottone, 2015; Crowe et al., 2016; de Manincor et al., 2016; de Manincor et al., 2015; Goleman, 2013; Hofmann, Sawyer, Witt, & Oh, 2010; Jorm, 2015; Khoury et al., 2013; Marwaha, Balbuena, Winsper, & Bowen, 2015; Zylowska, Smalley, & Schwartz, 2009). With regard to generalisability, a meta-analysis by Grossman and colleagues, demonstrates that mindfulness was effective in a wide variety of illness and clinical scenarios as well as in non-clinical settings (Grossman et al., 2004). Mindfulness techniques have a proven effect on stress-reduction (Aikens et al., 2014; Asuero et al., 2014; Dane & Brummel, 2014); the development of positive affect (Jislin-Goldberg et al., 2012) as well as positive emotions (Fredrickson, 1998, 2001); and the promotion of resilience (Tugade & Fredrickson, 2007); and, therefore, have the potential to amplify the positive impact of workplace wellness interventions.

In the study reported here, a comprehensive mindfulness-based workplace wellness program was implemented in a new and rapidly expanding organisation, Settlement Services International (SSI). Located in New South Wales, Australia, SSI is a community-based not-for-profit organisation working with vulnerable communities and providing services in the areas of refugee and migrant settlement, asylum seeker assistance, housing, multicultural foster care, disability support and employment services in NSW (SSI, 2015). However, in 2012, the organisation's primary purpose was the settlement of refugees and asylum seekers. SSI is a high-demand work environment (Caulfield, Chang, Dollard, & Elshaug, 2004; Kalia, 2002; Medibank Private, 2008) in terms of client needs and in the nature of its early and rapid expansion to accommodate contractual requirements. As such, the holistic philosophy of the *Be Well* program and the specifics of the program's interventions

received strong endorsement from the CEO and the Board of SSI, who supported the proposal to develop a wellness culture as part of strategic operations to enhance employee engagement, productivity and resilience.

An important feature of the workplace at the commencement of the *Be Well* intervention was its service delivery to refugee populations, of whom, a proportion had experienced trauma in their homelands or in transit to Australia. It is widely recognised that employees working with vulnerable or traumatised clients are at risk of stress, illness, burnout or, more seriously, work induced trauma (Griva & Joeques, 2003; Hensel, Ruiz, Finney, & Dewa, 2015; Lusk & Terrazas, 2015). Whilst the organisation has since expanded its program capacity and target populations to migrant populations more generally, the *Be Well* program continues to address this risk through an ongoing program that emphasises self-care, downtime and practical strategies that build resilience and enhance engagement and productivity at work.

2. About the workplace: Settlement Services International

Settlement Services International (SSI) was established in 2000 as an umbrella organisation for 11 NSW Migrant Resource Centres (MRCs), which were located across the Sydney metropolitan area as well as in Newcastle and Wollongong. In 2011 SSI successfully tendered to deliver Humanitarian Settlement Services (HSS) to refugees settling in Central and South West Sydney, North West Sydney and Western New South Wales.

Operating in a highly politicised space, the SSI Board resolved early to ensure its clients - many of whom had experienced torture and trauma in their homelands and great hardship on their journey to find new lives in Australia – were settled in

welcoming communities (SSI, 2012). This powerfully held conviction continues to guide the service ethos at SSI.

In April 2011, within 2 weeks of signing a 5 year contract with the (then) Department of Immigration and Citizenship (DIAC) SSI had 180 clients, many of whom had exited immigration detention centres. In the five months following, SSI recruited 120 new staff. A new corporate headquarters was acquired to house corporate services and program administrators, whilst some employees (case managers) were co-located within Migrant Resource Centres (MRCs) across the metropolitan area. Client numbers rose to over 4,000 in the first twelve months.

Since 2012, the organisation has been characterised by rapid growth in its staff and diversification of service delivery; the workforce has grown from 173 to more than 500.

In April 2014, the workforce had grown to 396 in total and was located in 17 sites, most of which were in Western Sydney. This represents a 345% increase in permanent employees (and fixed term contractors), and a 4% increase in casual/contractors and bilingual employees. Overall staffing had increased by 229% in just two years (SSI, 2014-15).

3. About Worklife Wellness

3.1 The rationale for the Be Well program model

During SSI's phase of organisational expansion from 2012 to 2014, Worklife Wellness was engaged to develop and implement the *Be Well* program, which included six training modules delivered in workshops to staff. Worklife Wellness drives positive change through mindfulness-based health and productivity programs

that are tailored to an organisation's unique needs. Worklife Wellness programs are underpinned by an evidence-based and comprehensive system's based approach to workplace health promotion that aims to provide sustained change and deliver a return on investment. The comprehensive approach has been shown to strengthen engagement, increase productivity and build resilience (Noblet, 2003). The literature suggests that work engagement is a significant and practical measure for workplace health promotion (Torp 2012), and is significantly correlated with reduced depression (Torp 2012; Bakker 2010, 2008); resilience is associated with the practise of mindfulness-meditation techniques (Tugade and Fredrickson, 2007) and productivity with the reduction of absenteeism (Colley, 2006); all of which are evident in or as a result of the Be Well Program.

To drive workforce engagement in the program at SSI, the CEO made 'Work Well', one of the *Be Well* training modules, mandatory. The half day *Work Well* training module mapped the link between stress management, personal productivity and strengthening coping skills through mindfulness.

3.2 The Be Well Program

The *Be Well* program represents a comprehensive and integrated approach to workplace health promotion, which is supported by the literature (DeFrank & Cooper, 1987; LaMontagne et al., 2007; Noblet & LaMontagne, 2006; Torp, Grimsmo, Hagen, Duran, & Gudbergsson, 2013).

Six separate training modules, described below, were developed to facilitate participants to become more psychologically and emotionally resilient (Cohn & Fredrickson, 2010; Tugade & Fredrickson, 2007) and to build personal productivity by

improving coping skills and enhancing physical and emotional wellbeing (Cameron, Mora, Leutscher, & Calarco, 2011; Fredrickson, 2003; Martin, 2005).

3.3 Be Well: A multi-dimensional model of mindfulness in the workplace

The Be Well model (illustrated in Figure 1 below) puts the goal of cultivating a mindful workforce at its centre, and encircles the goal with five characteristics of a mindful workforce that have been extrapolated from the literature: focused, self-aware, resilient, connected and adaptable (Dickenson, Berkman, Arch, & Lieberman, 2012; O'Connell, McNeely, & Hall, 2008; Rettie, 2003; Tugade & Fredrickson, 2007; Vago & Silbersweig, 2012). The next circle identifies eight evidence based strategies; specifically, savouring (Bryant, Chadwick, & Kluwe, 2011; Jose, Lim, & Bryant, 2012; Smith & Hollinger-Smith, 2015; Tugade & Fredrickson, 2007), visualisation and/or gratitude (Sheldon & Lyubomirsky, 2006; Waters, 2012); present moment awareness, intention/focus (Froeliger, Garland, & McClernon, 2012; Heydenfeldt, Herkenhoff, & Coe, 2011; Killingsworth & Gilbert, 2010; Kok & Singer, 2016), empathy (Block - Lerner, Adair, Plumb, Rhatigan, & Orsillo, 2007; O' Connor et al., 2015; Shapiro, Schwartz, & Bonner, 1998), physical activity such as yoga (de Manincor et al., 2015; Froeliger et al., 2012) and breath regulation (Cameron et al., 2011; Froeliger et al., 2012; Jerath, Edry, Barnes, & Jerath, 2006).



Figure 1: Be Well – A Multidimensional Model of Mindfulness in the Workplace

These strategies guide the application of related tools and techniques in the outer circle, the inspiration for all of which was drawn from respected sources and adapted for use in the workplace by the consultants who are both qualified and highly experienced teachers and teacher trainers in the classical hatha yoga tradition. The practices include yoga postures that have been modified to mitigate the effects of sedentary work; yogic breathing techniques applied in the context of stress reduction (Jerath et al., 2006); a savouring practice, *Taking in the Good*, drawn from

neuroscience (Hanson, 2009); traditional Buddhist practices designed to cultivate compassion (Jazaieri et al., 2013); *Thought Spotting*, a practice designed to ameliorate the effects of a wandering mind (Kam, 2014); the *Garden of the Mind* metaphor is applied to a gratitude and appreciation practice (Emmons, 2003; Waters, 2012); various traditional and adaptive practices are deployed under the banner of *Focussed Attention*, including the *Agile Mind* (Dickenson et al., 2012; Fergus, Wheless, & Wright, 2014; Marzetti et al., 2014).

It is evident from the literature that the techniques documented here, whilst drawn from neuroscience and the contemplative traditions, are continually evolving through professional practice, experience and evaluation.

The Be Well program incorporates various mindfulness approaches and offers workers tools to help them refine their mind and behaviours. This accessible toolkit provides participants with techniques that can help them cultivate a sense of wellbeing and, with practise, become more familiar with their own mental landscape and patterns of behaviour (Vago & Silbersweig, 2012).

3.4 Cultivating a mindful workforce

The Be Well program translates knowledge about mindfulness and positive psychology into an organisational intervention that seeks to cultivate a more mindful workforce whose achievements are reported in this study according to three primary indicators:

- a) **productivity/organisational effectiveness:** positive emotions are the possible missing links between the individual's momentary experiences and long-range indicators of optimal organisational functioning, including

satisfaction, motivation and productivity in the workplace (Fredrickson, 2003; Martin, 2005); which is supported by evidence that human productivity and performance are elevated by the positive more than the negative (Cameron et al., 2011).

- b) **resilience and self regulation:** are defined as the ability to marshal positive emotions to guide coping behavior, allowing for reduced distress and restored perspective (Tugade & Fredrickson, 2007); and to effectively modulate one's behaviour (Vago & Silbersweig, 2012).
- c) **work engagement:** positive, fulfilling, motivated and work-related wellbeing that is characterized by vigour, dedication, absorption (Bakker, 2009; Bakker et al., 2008; Schaufeli, Salanova, González-Romá, & Bakker, 2002); psychological capital and positive emotions (Avey, Wernsing, & Luthans, 2008).

4. Study aim and objectives

The project reported here aims to examine the effect of adding mindfulness to a comprehensive approach to workplace wellness, in terms reducing sick leave and improving satisfaction compared with stress for workers at SSI, in a high demand workplace in the human services sector. The research has four objectives.

1. To examine the effectiveness of *Be Well*, a mindfulness-based wellness program, in promoting productivity by reducing absenteeism, and building resilience through improved engagement. These outcomes are measured by
 - a. sick leave taken by employees in 2014 compared with baseline measures in 2012 as a measure of reduced absenteeism and improved productivity (Shain, 2004)

- b. validated questionnaires: Stress Satisfaction Offset Score (SSOS) and Business Health Culture Index (BHCI) in 2014 compared with baseline results from 2012 as a measure of stress compared with satisfaction
- c. team-based resilience as reported by managers in the 2014 Health and Wellbeing Needs and Interests survey
- d. employees' self-reported satisfaction and engagement with each of the six training modules included in the *Be Well* program

5. Methodology

To determine the health related needs and interests of SSI employees, Worklife Wellness conducted an initial workforce wide survey in 2012. The *Be Well* program was designed to respond to the results of this survey, producing a holistic, systems-based intervention, which incorporated six training modules (see appendix A) held in-house at SSI over the course of a 20 month period. The core training module, *Work Well*, was mandatory for all staff; participation in all other modules was voluntary. SSI ensured that all executive and management staff attended the *Be Well* program and supported the systemic implementation of strategies promoted by the program. Performance reviews were measured with regard to use and support of the program and addressing the upstream factors that facilitated the implementation of strategies. Two Health and Wellness Surveys (see point a. below) were sent by email to all staff at two time points; at baseline and at follow up 20 months later. Each survey was open to respondents for a two-week period. The first baseline survey was sent by email to all staff in April 2012, and the second follow up Health and Wellness Survey was sent in September 2014.

The data were collected on an online survey tool 'Survey Monkey', and de-identified data were extracted onto an excel spreadsheet for analysis.

We report on changes over time to sick leave as a proxy measure of wellness; we also report on the degree of changes in stress and satisfaction via the stress-satisfaction offset score, following the implementation of the *Be Well* program.

5.1 Analysis

The analysis of survey and questionnaire data was performed using statistical package SPSS version 22 (REF). Analysis of the data included descriptive statistics to describe the population, t-tests for continuous outcome variables, and Chi-squared analysis for categorical outcomes. Where the data is non-parametric, a log-transformation is used and a non-parametric test was performed. For regression analysis, the significant results of a univariate analysis were used to construct a multi-variate model to examine what modules from the program had the most impact on the validated questionnaire data contained in the SSOS/BHCI.

The SSOS is a validated questionnaire (Shain, 1999, 2004) that was developed as an initial and brief assessment of health risks, both physical and mental, relating to the work conditions of demand, control, effort and reward. Questions relating to demand and effort are the stress indicators, and those relating to control and reward are indicative of satisfaction.

While the SSOS is an individual measure, the mean or average score can be calculated for the workforce or group as a whole to indicate the Business Health Culture Index (BHCI). The BHCI at the organisational level is a simple measure of the extent to which the health culture of an organisation is working for or against its business objectives. Health culture in this context is an examination of the

relationship between certain stressors and satisfiers at work. The BHCI can be viewed as a foundation of information on which to work to improve the health and productivity of the organisation. The SSOS is a useful tool and can be viewed at the individual level, team level and then directed towards authentic leadership as the organisation matures and develops.

Sick leave entitlements were compared between 2012 to 2014 as a downstream indicator of workplace stress and absenteeism. As these were from potentially different populations a sensitive analysis was conducted to determine if the population distributions were statistically different or not in the two years, and therefore reliably comparable over the two time-points.

Individual factors in the survey or individual workshops were examined for a statistical relationship with the SSOS as a measure of stress/satisfaction.

5.2 Ethics requirements

The reporting of these study results is approved by the affiliated University of Notre Dame Australia's (UNDA) ethics committee (ethics approval number 015052S).

5.3 Workplace Health and Wellness Needs and Interests Survey

Using an online survey tool, the authors developed a workplace health and wellbeing needs and interests survey. All SSI employees were encouraged by the CEO to participate. Aware that the survey could not take too long to complete, it was limited to 50 questions. This included two logic questions enabling respondents to skip topics not pertinent to them (for instance, smoking and alcohol consumption).

After reviewing several needs and interest surveys, the Victorian WorkSafe Workplace Health and Wellbeing Needs Survey was chosen as the most relevant

(Worksafe Victoria 2010). The survey structure was logical and the questions clear. It also addressed health topics and issues relevant to Australian population health indicators (Begg, Barker, Stevenson, Stanley, & Lopez, 2007). These include: healthy eating and weight, physical activity, smoking, alcohol consumption and mental health. The WorkSafe survey included several questions about respondent's involvement preferences that would help inform program implementation. These freely available and validated resources are part of Victoria's comprehensive WorkHealth program, which are user-friendly and tailored for Australian workplaces (Victoria WorkSafe, 2010).

5.4 Evaluation

The main outcome measures used to evaluate the program were:

- amount of sick leave taken in 2014 compared with 2012
- self-reported stress - measured by SSOS/BHCI scores (Shain, 2004)
- Manager-reported team based resilience
- self-reported engagement with training modules
- measurement of association of training modules attended with SSOS.

Sick leave measures were drawn from organisationally reported sick leave in 2014 after the program's implementation, compared with sick leave in 2012 prior to implementation. The organisation's head of People and Culture provided general demographic information and sick leave data for this evaluation. Sick leave data was calculated as an average per office location (refer Table 3).

The Stress Satisfaction Offset Score (SSOS) (Shain, 2004) has been applied in the workforce surveys to calculate the four conditions of organisational culture, which

disproportionately contribute to stress and satisfaction outcomes in employees: control, demand, effort and reward. The four related factors of demand, control, support and engagement inform the comprehensive workplace health promotion approach, cited above. The SSOS is a validated tool that helps us to measure the impact of workplace stress on the workforce at SSI, in relation to job satisfaction (Shain & Suurvali, 2001).

The Business Health Culture Index (BHCI) (Shain & Suurvali, 2001) is the average SSOS for the workforce as a whole. It is simply the sum of SSOS for all respondents divided by the number of employees to derive the point estimate for the workplace.

5.5 Workshop participation and satisfaction

Since 2012 online training evaluations have been collected from training participants. Just over half (51%) of the employees attended more than one event, and just under half (49%) attended one training event only (modules for training events are described in Appendix A).

Table 1 below shows participation rates for the training events. These results show that as of 13 April 2014, 294 staff had participated in at least one of the Be Well training courses and, of these, 157 (54%) had attended multiple (between 2-6) training events.

Table 1: Be Well - Key Indicators of training efficiency (participation)

Performance Indicators		%
Training events for 18 months to 14 April 2014	56	
Total participation at all training events	594	
Average participation rate per event	9.5	
Employees attended 1 training event only	133	
Employees attended >1 (2 or more) training events	157	54%
Total # individual staff participating at 14 April 2014	290	100%

- Includes Be Well core modules x 6 only. Excludes Senior Leadership Team Management Retreat, non-training events, and other bespoke training activities.

Table 2 shows that the 407 participants (68.5% of 594) who responded to the training evaluations reported outstanding levels of satisfaction on all three primary indicators of training effectiveness for each of the modules or training events. Significantly, this table shows that an average of 96.8% of Be Well participants (across all training modules) reported that the training had prompted them to change the way they do things.

Table 2: Be Well - Key indicators of training effectiveness (satisfaction)

Training Event	Respondents	Overall Satisfaction %	Improved Knowledge and Understanding %	Prompted Change %
Stress Less	38	100	97.36	97.36
Work Well	182	98	95	93
Supervision in Focus	111	96.4	95.4	90.09
Move towards your Goals	29	96.55	100	100
Superfood Sessions	28	96.43	92.85	100
Communicating Clearly	39	100	100	100
Average as at 13 April 2014		97.9%	96.8%	96.8%
Total respondents	427			

5.6 Employee demographics

In April 2012, SSI employed 173 staff in 10 sites across western Sydney, the majority of whom had been recruited in the preceding 12 months. In April 2014, the workforce

was 396 in total and located in 17 sites, most of which remain in western Sydney. This represents a 345% increase in permanent employees (and fixed term contractors), 4% increase in casual/contractors and bilingual employees. Overall staffing has increased by 229% in just two years. In 2012, the average age was in the range of 20-29. However, by 2014 the average age was in the range of 30-39 (figure 2).

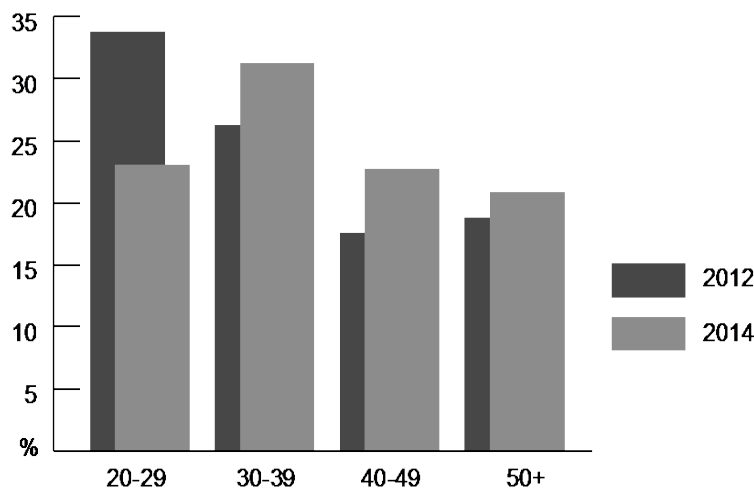


Figure 2: Average age of SSI employees 2012 and 2014

Of the 2014

respondents 65% were female, and 35% male, which is largely representative of the organisation’s demographic. It was evident that the respondents were mainly non-smokers, the rate of which roughly reflected the Australian average (ABS, 2015); had high educational attainment; represented all age demographics; and the majority had worked at SSI for longer than a year. The numbers of those born in Australia increased since 2012. Diversity in the workforce has remained strong with over 20 countries of birth and 52 language groups represented in the 2014 data.

While potentially a different cohort, the employees in 2012 were similar to the employees in 2014 in the proportion of those who smoked, consumed alcohol, and

the relative proportions of males and females. These potentially confounding factors were not significantly different between the two cohorts studied.

The majority of respondents were from four main offices, and the remaining 21.6% were from the 10 satellite offices. Given that there are two office sites in one location, accommodating the largest number of employees (139), the higher proportion of responses in a single location is to be expected (see Figure 3).

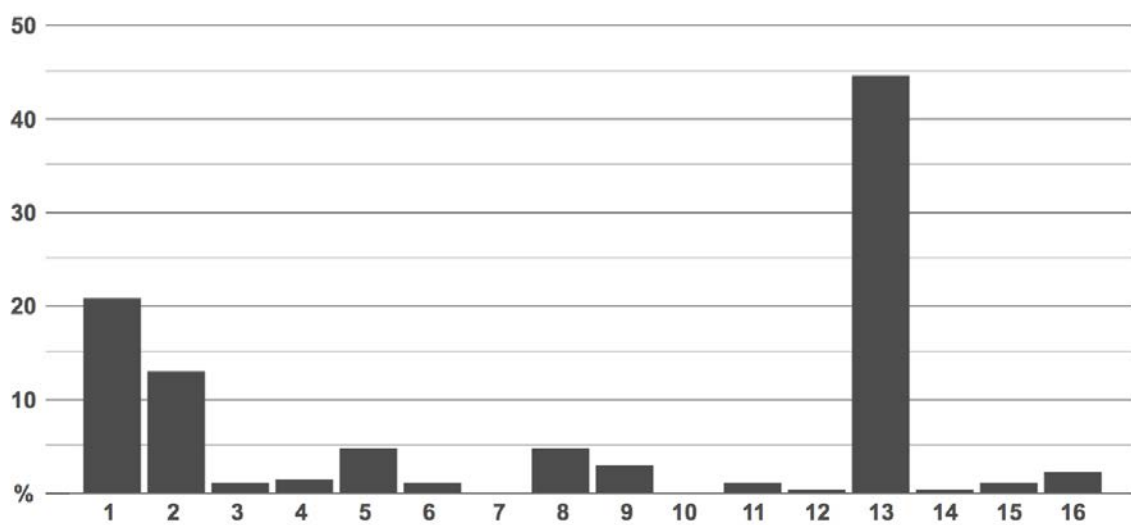


Figure 3: Location of respondents

6. Results

These results report on the Be Well program, and are examined in three parts. First, using sick leave data for all employees, we examined rates of sick leave at two times: baseline data in 2012 and subsequent to the introduction of the Be Well program in 2014. Secondly, using the results from a validated questionnaire (Shain, 2004), we examined reported stress levels for individuals using the SSOS, and the related measure at the business level, using the BHCI. Finally, to examine self-reported

satisfaction and engagement with each of the training modules we examined participant scores for each individual module.

6.1 Primary Outcomes

6.1.1 Sick leave measures

Sick leave was employed as a proxy measure for workplace stress in the study.

Across 11 sites, average sick leave per person was calculated at baseline in 2012, and again at follow up in 2014. There was variation across the sites ranging from an average of 0.26 days per person to 0.95 days per person taken as sick leave in 2012.

In 2014, average sick leave per person ranged from 0.03 to 0.1 days per person across the 11 sites.

Table 3: Average sick leave for individual sites

Site	average sick leave per person 2012	average sick leave per person 2014
1	.55	.03
2	.39	.04
3	.79	.04
4	.64	.08
5	.53	.08
6	.26	.06
7	.68	.03
8	.95	.06
9	.26	.10
10	.57	.03
11	.40	.06

Using a t-test to compare the mean difference in average overall sick leave taken, we compared the average across all of the 11 sites in 2012 (0.55 days), to the average in 2014 (0.06 days). The results demonstrate a significant reduction in sick leave taken in 2014 compared with 2012 (MD=0.49 (95% C.I. 0.34, 0.64) p<0.001) (table 4).

Table 4: t-test comparison of average sick leave across all sites 2012 vs 2014

Groups	Mean (SD)	Mean diff. (SD)	95% C.I.	p value
Sick leave 2012	0.55 (0.21)	0.49 (0.22)	0.34 – 0.64	<0.001
Sick leave 2014	0.06 (0.02)			

6.1.3 Stress Satisfaction Offset Score

The Stress Satisfaction Offset Score (SSOS) and Business Health Culture Index (BHCI) were used to examine reported levels of stress at both the individual employee level (SSOS), as well as at the business level (BHCI). To determine if any reduction in stress was evident, we examined baseline scores obtained in 2012 and compared these with post-intervention scores in 2014.

Participants ranked their responses on a scale of -2 to +2, where -2 to -0.1 correlates to greater perceived stress, and where +0.1 to +2 correlates to greater perceived satisfaction. A score of 0 indicates equal stress and satisfaction (see Table 5). Whilst the number of respondents is quite different in each sample, an analysis of variance showed a normal distribution in both sample populations.

In 2012 the mean SSOS, indicating the BCHI, was 0.82. People reported that, on average, they were between *equal stress and satisfaction* and *slightly more satisfaction than stress*. In 2014, the mean score, or BCHI, was 1.23 showing that on average, people were between *slightly more satisfaction than stress*, and *more satisfaction than stress*. These results are shown in Table 5 below.

We compared the change in the BCHI from 2012 to 2014. Using a t-test to compare means there was an average increase from 0.82 to 1.23, indicating an increase of 0.41 ($p < 0.05$) between 2012 and 2014 results. This confirms that since 2012, work-related stress has been significantly reduced and job satisfaction increased at SSI.

Table 5: Stress Satisfaction Offset Score 2012 and 2014

	2012 Frequency	2012 %	2014 Frequency	2014%
More stress than satisfaction	2	3.0	0	0.0
Slightly more stress than satisfaction	10	15.2	5	2.2
Equal stress and satisfaction	12	18.2	43	20.8
Slightly more satisfaction than stress	16	24.2	61	47.2
More satisfaction than stress	26	39.4	122	29.8
Total	66	100.0	231	100.0
Missing	15		38	
Total	81		269	

6.2 Secondary Outcomes

6.2.1 Self-reported engagement with training modules

Workshop participation rates and the perceived usefulness rating of each workshop were analysed and mapped to the individual and business level SSOS (see Table 5).

All respondents (100%) rated each of the *Be Well* activities as helpful in some way (between somewhat helpful and very helpful). The six most well attended activities were: Work Well; Stress Less; Supervision in Focus; Communicating Clearly; Yoga; and Move Toward Your Goals.

The average score for each workshop was also calculated (Table 6). The helpfulness of each of these six activities was confirmed with an average score of 3 and over.

The remaining workshops or initiatives had an average score of 2.73 or more. These

results show a high satisfaction with the workshops offered and were applied in the planning process to ensure a focus on activities with the highest impact.

Using univariate analysis, those workshops that had a significant relationship with the SSOS were analysed. Further, multivariate analysis was used to build a model of the factors that most significantly contributed to the increased SSOS results.

Table 6: Activity participation and helpfulness

Training Event	Participant Response (n)	Mean response score: 1=unhelpful 2=somewhat helpful 3=helpful 4=very helpful
Supervision in Focus	118	3.14
Stress Less	128	3.12
Communicating Clearly	105	3.10
Work Well	196	3.03
Move Toward Goals	80	3.01
Yoga	89	3.0
Mindful Meditation	75	2.96
Team Leader Communication	52	2.96
CEO Wellness Award	49	2.94
Be Well Committee	74	2.89
Red Cross Blood Donation	62	2.84

Factors that had a significant correlation with reduced stress and increased job satisfaction included participation in: Yoga; Move Toward Your Goals; Stress Less; and Work Well.

Through statistical modelling of variance (multivariate analysis) the three factors most predictive of a reduced stress and higher job satisfaction were participation in Stress Less, Yoga and Work Well (see Table 7).

Table 7: Multivariate model predicting SSOS

Training Event	Mean Square	P Value
Stress Less	2.054	0.01
Yoga	2.554	0.03
Work Well	1.230	0.08

6.2.2 Future Workplace Health and Wellness Activities

Participants were presented with a list of nine future wellness training activities, to which 221 people responded, and participants could nominate their attendance preferences. The five workshops with the highest response rates were: Sleeping better naturally (n=112, 50.7%); Eating for wellness 111 (50.2%); Building emotional resilience (n=107, 48.4%); Practical stress management tools (n=99, 44.8%); and Mindfulness training (n=96, 43.4%) (for a full list of responses, see Figure 4 below). The workshop with the highest response rate was 'Sleeping better naturally'. In response to Q.19, Do you feel rested when you wake up in the morning, 111 (45.5%) respondents stated that they did not feel rested when they woke up in the morning. These respondents were statistically more likely to identify that the Sleeping Better naturally workshop was of interest. As a further stress reduction measure, enhancing sleep quality may be an important indicator of stress levels for SSI employees, and a good target for future workshops.

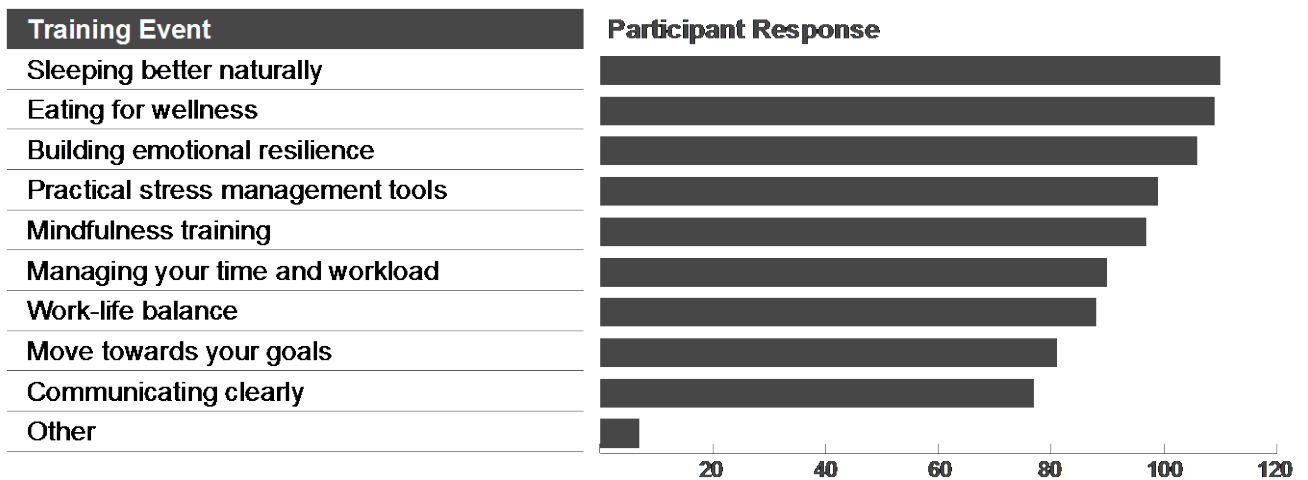


Figure 4: Interest in attending future Be Well training

7. Discussion and conclusions

This study aimed to evaluate the effects of introducing a systems-based work place wellness program ‘Be Well’ to the SSI workforce. It demonstrated significant reductions in sick leave and increased satisfaction compared with stress scores for employees. It provides an effective example of a systems-based approach to wellness interventions that may be generalisable across the human services sector.

The results from this study contribute to the evidence for a workplace wellness intervention using a systems-based approach in the human services sector. At the organisational level, the improvement in the Business Health Culture Index (BHCI) suggests that SSI’s culture is aligned with its business objectives, and has successfully incorporated changes in strategic policy and operational strategy.

The systems-based approach to workplace wellness, as advocated by Noblet addresses upstream stressors and incorporates organisational change at the management level (Noblet, 2003). This has been shown to be more effective than health promotion that targets individuals and their coping skills (LaMontagne et al., 2007; Noblet, 2003; Safe Work Australia, 2013). Noblet’s work outlines that the

characteristics of 'social support' and 'job control' account for most of the variance in job satisfaction (Noblet, 2003; Noblet, Rodwell, & McWilliams, 2001). In their 2008 paper, Noblet and colleagues, found that these characteristics, along with some sector-specific stressors, should be targeted by programs to address negative effects of large-scale organisational change (Noblet et al., 2008). However, these studies provided no program to address the issues.

Mindfulness techniques have also been shown to be effective in reducing the physiological impacts of workplace stress, and effective in building resilience among workers (Asuero et al., 2014; Dane & Brummel, 2014; Grossman et al., 2004). However, systematic approaches to workplace wellness programs using mindfulness have not been addressed.

The *Be Well* program has been instrumental in improving employees' responses to stress and taking positive steps towards changing modifiable health behaviours and outcomes. Given the substantial burden of mental health costs in the workplace (Safe Work Australia, 2013), and its implications for the human services sector, *Be Well*, adds significantly to the evidence for a systems-based wellness intervention.

The strengths of this research are in the broad inclusion of participants, the high response rate, the diversity of backgrounds, and the stressful nature of the work. This has broad applicability and generalisability for other workplaces in Australia and internationally.

Limitations include the study's ability to take only indirect measures of stress by the use of sick leave data. The outcomes taken in conjunction with stress and satisfaction scores and managers' survey responses is seen as a holistic picture of the greater effects of the *Be Well* program. Reducing absenteeism is one of the goals

of the program and an indicator of wellness, although it is not a direct measure of wellness. However, reduced worker turnover and sick leave indicate greater levels of satisfaction.

Being a pragmatic study, using evaluation data drawn from a rapidly expanding workforce, the sample in 2012 compared with 2014 were not necessarily the same cohorts. Nonetheless, we can see from the population data that these participants did not significantly differ in 2014 from 2012 in terms of gender, smoking and alcohol status.

Other limitations are that some workshops were less well attended, such as Team Leader Communication, as it was not indicated for all staff. This may have led to small numbers for the specific analysis and consequently may not have shown a relationship. A larger sample of team leaders and managers is required for a more robust analysis of those results.

As indicated by the Australian Government's Mental Health Commission (Harvey et al., 2014), developing a mentally healthy workforce requires commitment across public and private sectors at all levels of the workplace, and focuses on working flexibly, building resilience, developing better work cultures and supporting employees with early intervention and recovery strategies.

The *Be Well* program has broad applicability as it is able to be scaled and tailored according to workforce survey results and has addressed the key aspects of building a mentally healthy workplace with an effective and comprehensive evidence based program using a mindfulness based approach.

Increased demand for human services in Australia, and internationally, requires a thoughtful management approach to mitigate risks to employees and to enable the provision of high level services to potentially vulnerable clients.

The comprehensive mindfulness program, *Be Well*, provides a systems-based approach to workplace wellness. The program recognises that employees require control over aspects of their work and work-life engagement to offset high demand in their roles. This is increasingly relevant in a globalised work arena. The program addresses upstream stressors by (a) acknowledging the responsibility of management for implementing an appropriate policy framework, (b) providing training in mindfulness-based tools and techniques at the individual level to reduce stress (c) providing access to rehabilitation or treatment services. This study offers a unique contribution to the workplace wellness agenda through a systems-based approach and the use of mindfulness-based tools. The literature has so far examined each of these contributions individually, however this study shows the effects of a combined program to reduce stress and absenteeism, and improve work satisfaction.

The program has shown potential to minimise costs due to reduced absenteeism, and therefore increased productivity in this high stress workplace. This case study provides a valuable addition to the evidence and informs the implementation of sustainable programs in the public and not-for-profit sectors.

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Appendix A: Workshop detailed description

These workshops include:

1. Work Well workshop – mandatory training for all staff

This half day workshop focuses on building resilience and personal productivity. The toolkit includes techniques to reduce distractions, skills to strengthen self-management and proven mindfulness techniques as described above.

2. Stress Less

Stress is costly at every level. This training provides practical strategies to better understand and manage stress, build resilience and optimism. It supports staff to better navigate the competing pressures of work and family life.

3. Communicating Clearly

Communicating at work is complex in the context of multi-generational teams, dispersed workplaces, unconscious bias and time pressures. Emotional intelligence underpins interpersonal relationships and effective communications. The Communicating Clearly training unpacks the dynamics behind listening and speaking effectively when it matters most.

4. Supervision in Focus

This training builds team members' receptivity to being well managed. Ideally suited to new starters, the content includes: professional work practice, effective feedback skills and managing up. This workshop focuses on building resilience and personal productivity. The toolkit includes strengthening self-management skills and proven mindfulness techniques.

5. **Superfoods**

With chronic disease prevention and recovery front of mind, this workshop celebrates the joys, flavours and benefits of eating well. It helps staff understand the powerful benefits of nutritious food including its impact on mood, energy and resilience.

6. **Move Toward Your Goals**

This workshop builds team members' receptivity to being well managed. Ideally suited to new starters, content includes: professional work practice, effective feedback skills and managing up.