

**The effect of a computer-based workplace health and wellbeing program on workplace health culture.**

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**Abstract**

Increasingly workplaces have become the primary site for health and wellbeing education for adults. The current zeitgeist for this education is the workplace health and wellbeing program (WHWP). Advocates of WHWP list a plethora of outcomes associated with their implementation. Nonetheless, evaluation of WHWP tend to focus on objective measures such as cardiovascular fitness and participation levels at the expense of less tangible measures such as organisational culture and climate. Common oversights like this often lead to organisations and participants losing interest and disengaging with various WHWPs (McKay et al., 2001). In turn, this leads to false positive results and low sustainability with such programs. We propose that effective evaluation of WHWPs, should incorporate employee perspectives about any changes in workplace health culture.

Typical WHWPs outcome measures include body weight, body mass index, physical activity/fitness measures, ergonomic assessments, physiological measures, and nutritional choices (Greaves et al, 2011). Promoters of WHWPs solely rely on the reporting of these outcomes, but rarely mention employee perspectives of changes to workplace health culture. It is broadly speculated that WHWPs have the potential to change various aspects of workplace health culture such as improved employee morale, enhanced work productivity, decreased absenteeism, improved employee retention, and improved corporate image; nonetheless reports containing empirical evidence regarding these outcomes are limited (Conn et al., 2009). The purpose of this investigation is to provide an account for the effect of a computer-based WHWP on a state-wide workplace health culture.

A socio-anthropological perspective (Schein, 1991) was used to examine workplace health culture. Data collection included face-to-face semi-structured interviews, phone and electronic communication, and repeated open-ended questionnaires. Using a triadic framework the researchers independently coded transcribed data into the following a priori literature-derived themes; workplace morale, social health, physical health, emotional health, stress, absenteeism, and work productivity (Batt, 2008; Chapman, 2005). Researchers used word repetitions and keywords in-context as their primary guides for coding (Ryan & Bernard, 2003). Following this process, the researchers met and compared coding schemes.

Participants reported that a computer-based WHWP positively changed their workplace health culture across sites. Changes included, but were not limited to, increased levels of interpersonal communication, satisfaction with the organisation, and work productivity. These findings present evidence that a WHWP can affect workplace health culture, which in turn has the ability to educate employees about the importance of a healthy lifestyle in and out of the workplace.

**Key Words**

Workplace health and wellbeing program, evaluation, workplace health culture, employee education.

Health and wellbeing advocates have identified workplaces as ideal sites for educating adults about healthy lifestyles because working adults spend half of their life at work (Premier's Physical Activity Council, 2007; Conn, Hafdahl, Cooper, Brown & Lusk, 2009). Advocates of workplace health and wellbeing programs (WHWP) often assert claims that the outcomes of such programs benefit economic variables of cost including cost-benefit (expense for outcomes), cost-utility (degree to which quality of life is improved per dollar spent), and cost-effectiveness (monetary value for measure of effect (Anderson, Quinn, Glanz, Ramirez, Kahwati, Johnson, Buchanan, Archer, Chattopadhyay & Kalra, 2009). Moreover, WHWP advocates claim health benefits including increases in employee physical activity levels, reduced body weight, decreased metabolic risk factors, and increased cardiovascular fitness levels. Despite these cost and health claims, many of these outcomes are unfounded because too often workplaces fail to conduct an adequate measurement of these WHWP outcomes (Crowther, Thwaites, & Zhou, 2004). This leads to a lack of understanding to the effect that these educational programs have, and thus may create a misperception of the perceived benefits that WHWP can achieve (Conn et al., 2009). The aim of this research study is to identify and measure the tangible, and intangible, outcomes associated with a computer-based WHWP, and the overall effect such an educational program can elicit on overall workplace health culture.

Previous investigations of the effectiveness of WHWP have been modest (Simpson, Oldenburg, & Owen, 2000). Although highly touted as being a solution to physical and mental health issues in the workplace, the claims made by WHWP may not necessarily be justified. The possible reasons for this are numerous; however incongruence between projected outcomes and actual outcomes may provide insight into the limited reported benefits from such programs. Often organisation management focus WHWP outcomes on tangible economic indicators such as value for money, improvements in work productivity, reduction in work-related injuries and accidents, and reduced absenteeism (Chau, 2009). Furthermore, management hold the position that implementing a WHWP is the 'right thing to do for their staff', and will enhance employee views of management (Crowther, Thwaites, & Zhou, 2004). The perceived achievement of these outcomes can generate a variety of benefits; however the approach selected by many organisations to monitor and evaluate program effectiveness is a key detractor or failing (McGillivray, 2002). Previous research (Anderson et al., 2009; McGillivray, 2002) indicated that several outcome measures may be collected in WHWP, yet quantitative outcomes reported by researchers may be influenced by the lack of significant results, and are frequently biased or prejudiced towards employers' views. In focussing on the tangible and economic outcomes of WHWP, and by providing limited program evaluation, organisations have overlooked the less tangible benefits of WHWP, such as workplace culture and morale. Identifying these less tangible outcomes with more appropriate evaluation techniques may unearth realistic and accurate reporting of WHWP.

In 2008, Bull, Hooper and Jones attempted to assess several of the less tangible outcomes associated with WHWP, in particular the Well@Work United Kingdom initiative. This WHWP incorporated 11 different physical activity projects (e.g., workplace stair use programs and workplace social physical activity participation programs) into 32 public, private, and voluntary sectors representing small, medium, and large organisations – a total of 10 000 employees. Interview data from senior management and organisational representatives showed that workers perceived that there were less tangible outcomes associated with the intervention, including improvements in staff morale, employee relations, communication, staff satisfaction, and employee motivation. Furthermore, the initiative enhanced perceptions of team building amongst staff departments and groups, improved employee-management relations, increased loyalty to the organisation, and established a feel good factor in workplaces, which enhanced the working culture such that people wanted to come to work (Bull, Hooper, & Jones, 2008). Thus, it appears that educational WHWP cannot only benefit the health of the employee, but also have a positive effect on the health culture of an organisation.

In a review of WHWP Conn et al (2009) suggested that even small-scale initiatives could influence the workplace culture. One of the studies reviewed (Crowther, Thwaites, & Zhou, 2004) reported that a survey of Australian workplace health initiatives demonstrated that employee health morale was a primary reason employers' implemented such initiatives. They found that Australian employees exhibited were extremely appreciative that senior management implemented a WHWP. Results of this initiative indicated that employees developed positive attitudes towards their organisation and co-workers, felt supported in the workplace, and thus reduced their absenteeism. Nevertheless, there is a paucity of literature on the less tangible outcomes associated with WHWP. Research to this effect may provide insight into why many WHWP fall short of meeting alleged benefits, lack sustainability, struggle to engage large numbers of employees, and face challenges in retaining participants throughout implementation (Chau, 2009).

To gain an authentic understanding of the outcomes associated with WHWP we elicited the employee perspective before, during, and after being involved in such an initiative. Utilizing a phenomenological approach the purpose of the current research study was to interview employees engaged in a WHWP according to the literature-driven tangible and intangible themes discussed above. The tangible themes that were assessed included perceived improvements in physical activity (Chau, 2009; Dugdill, Brettle, Hulme, McCluskey, & Long, 2008), and perceived effects on work productivity (Bull and Hooper, 2009; Premier's Physical Activity Council, 2007). In addition, we ascertained employee perspectives on several intangible outcomes that may be associated with WHWP including emotional health, job-related stress, social health, and overall workplace culture. Although these latter themes were derived from the literature (Prodaniuk, Plontikoff, Spence, &

Wilson, 2004; Conn et al., 2009; Premier's Physical Activity Council, 2007), we believe they have been inadequately assessed as to their potential value when implementing an educational WHWP.

## **Method**

### ***Participants***

The study was part of a larger randomised controlled trial within a Tasmanian workplace. The workplace was a state wide organisation, with employees from across all regions. The sample ( $N=51$ ) consisted of predominantly female employees ( $n= 39$ ). Participants accepted an organisation-wide invitation to participate in a WHWP. Eligibility criteria for inclusion were: 1) paid employment, 2) working a minimum of part time hours, 3) clear of any medical health issues, and 4) desktop access to internet, email, and phone. This part of the study targeted changes at the individual level. Informed consent was obtained from the participants prior to any data collection, which commenced in June 2010 and concluded in July 2011. Participants underwent three periodic semi-structured face-to-face interviews with the project researchers.

### ***Data collection***

Thomas and Nelson (1996) proposed that interviews are an adaptable and versatile method for gathering information, and enable the interviewer to observe interviewee responses, therefore gaining greater insight than other methods of data collection. Face-to-face interviews were conducted in the work offices of the participants. The purpose of the interviews was to ascertain participant perceptions of the WHWP in regard to the literature-driven themes identified previously, to provide an opportunity for them to give feedback on the WHWP, and to determine the advantages and disadvantages of a WHWP. Each interview was approximately 20 minutes. The questions utilised in the interviews were designed to obtain information on both tangible and intangible themes. The questions were:

1. Do you believe that this WHWP has assisted with your ability to deal with stress at the workplace? If yes, how?
2. Do you believe that this WHWP has prompted you to become more active at the workplace? Why or why not?
3. Do you believe that you have become more productive or less productive with your work duties since you have been a part of this WHWP?
4. Do you believe that this WHWP provides a good break and increases your energy levels? Why or why not?
5. Has being a part of this WHWP encouraged you to make any changes to your behaviour at the workplace? If yes, what sort of changes?
6. Do you believe that this WHWP has contributed to any lifestyle changes outside of the workplace? Please provide any examples.
7. What do you believe are the advantages of being a part of this WHWP?

8. What do you believe are the disadvantages of being a part of this WHWP?
9. Would it feel strange coming to work and not being exposed to this WHWP?
10. Would it be worthwhile having this WHWP at your workplace permanently?
11. Any other comments or feedback regarding this WHWP?

### **Intervention**

Participants received an innovative computer-based intervention which prompted them to stand from their office chairs to perform a one to two minute bout of incidental physical activity at regular intervals within the office environment. The intervention allowed the user to select from a range of over 60 incidental physical activity options, from easy to challenging intensities. After each short bout of activity, the user was asked to input their progress into the computer program (e.g., 60 seconds of walking up and down the corridor, five desk dips). This information was stored and used to calculate the energy expenditure (presented in calories) for each bout of incidental physical activity. This function, which could be viewed at the leisure of the user, was used as a motivational tool to improve adherence to the WHWP. This function was incorporated due to recent research indicating that people who want to change their lifestyle should be encouraged to regularly monitor their progress in adopting a new behaviour (Kruger, Blanck, & Gillespie, 2006; Yon, Johnson, Harvey-Berino, Gold, & Howard).

The above sequence was initiated each time by a computer-based prompt reminding participants to stand and perform a short bout of physical activity at 45 minute intervals. This time allocation was based on the *Worksafe Australia Guidance Note for the Prevention of Occupational Overuse Syndrome in Keyboard Employment* (1996), which specifies that all computer-based employees should remove themselves from a sedentary position for a short period within every 60 minutes.

### **Procedures**

Participants were randomly placed into either an experimental group or a control group. A crossover research design was utilised whereby the experimental group received the intervention for 13 consecutive weeks, while the control group continued work as they would normally. Following the first 13 weeks, the control group then received the intervention for the next 13 weeks while the experimental group continued with user-controlled access to the intervention, however this intervention had the periodic prompt removed (washout). Following the second 13 weeks, the control group then moved into a washout phase, and the experimental group were offered the intervention permanently on their work computer. Each participant was interviewed once during the experimental period, once during the control period, and once during the washout period. To ensure accuracy of the interview data, interviews were digitally recorded verbatim using *Audacity*

software on a laptop computer, as well as being digitally voice recorded to prevent loss of data. The researchers transcribed the audio recordings of the interviews.

### **Data analysis**

An *a priori* literature-driven coding frame was developed to categorise data from the recorded interviews into themes. However, based on the work of Cresswell (2005) this study was not limited to the tangible outcomes identified in the relevant literature. Where and when intangible themes emerged from these data they were subsequently categorised and labelled accordingly. Cresswell emphasised the key to quality analysis is the researcher's ability to go beyond the identification of proposed themes, to extrapolate further meaning from data.

### **Results and Discussion**

The purpose of this study was to classify the tangible and intangible outcomes related to a computer-based WHWP, and to determine the influence such an educational program can elicit on workplace health culture. During the experimental procedures each participant provided interview responses on three occasions (before, during, and after participating in a WHWP). After these audio data were transcribed, they were grouped according to tangible and intangible thematic outcomes. Dialogue, feedback, and comments from the participants are provided below as evidence to support or refute these outcome thematic codes as reported in the relevant literature.

#### **Physical Health (tangible)**

A major premise of the WHWP was to get employees, at the very least, to stand up from the seated position periodically throughout the workday. Interestingly, all participants indicated that the WHWP had a habitual effect on reducing occupational sitting time, and many implied that it had a positive effect on the amount of incidental physical activity they performed while at work, and some even suggested that this behaviour generalised to their leisure time. More specifically, participants commented that, *"the program has made me become more conscious of getting up more often, especially when using the photocopier, collecting printing, and filing. Before the program I rarely stood up"* (participant 1), and *"I have my favourite exercises that I like to do, I am definitely getting out of seat more, and I have become more active at work and away from work through this program"* (participant 45). Increasing physical activity at the workplace and beyond the workplace is an important element of WHWP, with recent research suggesting that employees with active occupations are no more active in their leisure time than employees with inactive occupations (Tigbe, Lean & Granat, 2011). According to the participants the WHWP was successful in engineering physical activity back into the workday, and in some cases was the catalyst for the development of habitual behaviour of this type. This is a valuable finding as workplace health education may have a direct benefit to the longevity of adult desk-based workers.

#### **Work Productivity (tangible)**

Most, if not all organisations are primarily concerned with the bottom line. Although it would be ideal to have all employees healthy, if a WHWP interferes with work productivity, employers will be reluctant to support such programs. Alternatively, if a WHWP did increase employee work output, an employer would be remiss to not provide one to their organisation. Several participants commented on their increased work output, and no participants said that it inhibited their work productivity. Participant 2 stated that, *“the program is really good, it clears my head and if anything I am getting more work done. It has made me more conscious about walking and the importance of doing this regularly throughout the day. It is surprising how quick forty five minutes go by”*. Other comments received were, *“the program has increased my work productivity and definitely helped with workplace structure. Overall I believe it has improved my concentration, my alertness, helps me keeping cool and controlling my temper which can be volatile, and has increased my work output”* (participant 20), and *“I have now changed my filing process so that I regularly get up out of my seat rather than do it all at once. This has been more productive and effective”* (participant 11). The American Institute for Preventive Medicine Wellness White Paper (2008) revealed that in 2005, organisations who implemented WHWP increased work productivity by eight percent. This WHWP reaped benefits for some participants relevant to organisational and performance characteristics which were both physical and mental. Importantly, the program appeared to enhance productivity in the workplace rather than impede it.

### **Social Health (intangible)**

Minimal evidence exists reporting any social benefits from WHWP in the workplace. Despite this, an unanticipated benefit from the WHWP was the social capital created in the workplace. Through the interview process many participants acknowledged the new-found interaction between employees who were part of the WHWP. Even more interesting was that many employees reported that even the non-study participants actively joined their colleagues in the prompted incidental physical activities throughout the study. Participant comments included, *“the program has definitely brought us closer together as a staff group, it has great social benefits”* (participant 13), *“the program has created great social benefits when using stairs, I regularly see and speak with other employees who I would not normally communicate with. I now go out of my way to go and collect mail or collect guests from downstairs”* (participant 20), and *“by getting out of my seat I have found that others in the office area have become involved and join in with me”* (participant 40). According to Bellew (2008), the involvement of senior management and employees from multiple organisational levels in a WHWP is optimal for program success and effectiveness. The added benefit of belonging and camaraderie for the participants (and non-participants) through engagement in the WHWP provided genuine excitement to be at work, and more importantly to be engaged in a shared healthy lifestyle while at work. The social benefits identified from this WHWP also contributed to emotional health benefits reported by participants.

### **Emotional Health (intangible)**

It is uncommon in studies on health and wellbeing initiatives for participants to report intangible benefits linked with improvements in self esteem and motivation (Prodaniuk, Plontikoff, Spence & Wilson, 2004). Contrastingly, comments received from this study were supportive of emotional health benefits, with examples such as, *“through doing the exercises I feel better about myself, it has improved my self esteem. The program has made a positive difference to the way that I feel about myself”* (participant 3), *“I feel good after doing [the different exercises] and I notice when I have not done any exercise for a while”* (participant 9), and *“I have increased the intensity of exercises (e.g., number of push ups) and I regularly achieve over 50 calories per day which is very motivating”* (participant 18). Multiple participants reported that the WHWP had increased their motivation to be physically active at the workplace, which they believed encouraged them to adhere to the program. According to Dawson, Tracey and Berry (2008), workplace physical activity interventions which incorporate incentive and a sense of achievement contribute favourably towards participant engagement and program adherence. Furthermore, through performing individually appropriate exercises and receiving energy expenditure data, participants experienced a positive level of satisfaction from being involved with the WHWP. These benefits from the WHWP also impacted on workplace culture and morale.

### **Workplace Culture (intangible)**

In previous WHWP research workplace culture has seldomly been identified as a positive consequence. The impact this WHWP had on the participants and the organisational culture of the workplace was considerable. The combination of individual benefits, group benefits, occupational health and safety awareness, and behaviour change, provided substantial evidence that the program had become a part of the work day. This was supported by comments such as, *“I now feel comfortable leaving my chair; it has now become a routine. I am feeling less aches and pains, less stiffness, it makes me do it when I would not normally. The calories are a good motivator for me. I feel more refreshed during the work day, it is a great mental break* (participant 14), *“the goal of reaching fifty calories is a great motivator; I do half in the morning and half in the afternoon. I have noticed an increase in my energy levels and zip, and it makes the day go quicker. The program feels like part of the day and it would feel strange not having it on my computer”* (participant 8), and *“I am usually quite good at getting out of my chair normally, but the program has made it more scripted and regular,”* (participant 48). Participant 33 commented on how the WHWP added a welcome structure to her workday, *“I cannot believe how quickly 45 minutes goes by, this has definitely made me realise how much employees sit. I would not do the exercise at all if I was not prompted. The program serves a good purpose and creates an awareness of health at work. Without the program it is very easy to slip back into old bad habits”*. These comments support findings from Krebs, Prochaska and Rossi (2010), who in a meta-analysis of interventions for

health behaviour change, found that their effect declined after the intervention was completed. Several participants recognised the potential occupational health and safety benefits of the program, with comments such as, *“this program is a great solution for occupational health and safety issues that are common in all workplaces”* (participant 39), and *“there is definite benefit for injured employees, workers compensation employees, and injury rehabilitation employees”* (participant 28). It is well documented that investing in a WHWP reduces work-related injuries and therefore reduces medical costs also (Batt, 2008; Bellew, 2008; Hopper & Bull, 2009). Recognising the occupational health and safety advantages that can be delivered from well designed WHWP offers a multitude of potential benefits to any workplace. Furthermore, participants recognised the impact that this WHWP had on their daily routine, and conveyed a high level of confidence in their workplace benefitting from the program. Belief and trust in these principles of WHWP may be central to the impact and perceived success of such programs. There was a strong indication that participant confidence in the program was instrumental in the establishment of workplace habit.

### ***Habit Change (intangible)***

During the 13 week washout phase the participants were allowed access to the intervention, but the prompt was withdrawn; therefore participants controlled when they performed the exercises. The participants conveyed that the removal of the prompt had different effects on their behaviour. Several participants stated that they continued to access the program regularly throughout the day, but the manner in which they did this was unstructured; they did so when the opportunity arose or when they were not too busy. Some participants continued to be active regularly through the routines that had been established while receiving the prompt, however this activity was performed without accessing the program; therefore representing the development of a workplace habit. Examples of such behaviours are always taking the stairs, standing every hour to photocopy or collect printing, periodic filing, standing while talking on the telephone, or doing step ups every time they re-enter their office. Several participants slipped back into their “normal” workplace routine soon after the prompt was removed, conveying that without the prompt they had difficulty maintaining regular activity. Interestingly, some participants responded to the negative health effects that not being prompted produced, and proactively created their own prompt to remind them to stand and perform an exercise. For example participant 6 stated, *“each time the news comes on the radio myself and the other ladies in this office area get up and exercise together”*, and participant 21 suggested, *“I have set the timer on my watch to alarm every hour so that I do not forget to get up and exercise”*, and finally participant 40 remarked, *“my office colleague and I have a system whereby I lead an exercise on all the even hours and she leads an exercise on all the uneven hours throughout the day”*. These examples and behavioural responses demonstrate the powerful effect that an educational WHWP had on organisational culture, social capital, stress, productivity, and multiple dimensions of health.

### **Stress (intangible)**

The major premise of this WHWP was to educate employers and employees that incidental physical activity performed periodically throughout the workday can benefit the workplace in several ways. Typical WHWPs take large chunks of time, usually during employee lunch breaks, which may result in elevated levels of stress in employees (Spittaels, De Bourdeaudhuij & Vandelanotte, 2007). The stress-related outcomes of this WHWP were reported by employees in the following responses, *“I find that it does break the stress and monotony, and mundane nature of work. It does provide a liven up at the 3:00pm afternoon lull”* (participant 11), *“I have noticed a reduction in my stress levels. Personally I have found the program very good after initially being sceptical as to what benefits may be. I am more alert, have greater concentration, and have not lost the plot in quite some time”* (participant 20), and *“I would not get up out of my chair without the prompt. I have found that I am feeling less tired during the day. The exercises and the exercise videos provide a nice distraction and a short break from what I am doing”* (participant 42). According to the American Institute of Preventive Medicine Wellness White Paper (2008) the most important influence on work performance and productivity is stress. This illustrates the need for stress to be managed in the workplace environment; the findings from this study demonstrated that the WHWP impacted stress levels within the workplace.

### **Emergent Intangible Outcomes**

Interestingly, this WHWP yielded several benefits which were not identified as outcomes of the study. Firstly, some participants reported that the program had a physiological effect, commenting that *“I do believe that doing the exercises has sped up my metabolism”* (participant 3), *“I have noticed that my trousers are looser”* (participant 6), and *“I do not want to get rid of the program from my computer. It has stabilised my weight, and I have felt positive results within myself”* (participant 50). These findings may be the result of a direct effect of the WHWP, or they may be an indirect outcome to some other influence such as an alteration nutritional choices and eating habits as a result of the WHWP. Some participants indicated that, *“the program has complemented recent nutritional changes, and it has helped me to decrease the amount of chocolate I eat”* (participant 21), and *“I am now eating less biscuits while at work”* (participant 8). Dietary improvement from previous WHWP research has produced inconsistent findings; however this WHWP did show signs of participants consciously changing their eating habits as a side effect of the program.

Another unexpected impact on the workplace culture from the WHWP was the effect on two of the participants who were smokers. The WHWP changed their behaviour so they did not rely on smoking to be the vehicle for their daily break. Because of the intervention these two individuals were able to replace a negative unhealthy break behaviour with a positive healthy break alternative. This had an overall effect by reducing the amount of cigarette use. Participant 11 stated, *“the*

*program has been instrumental in helping me to give up smoking, it has been nine days since my last cigarette*", *"this has complemented my current health level with giving up smoking after 28 years, as well as my thoughts about consciously making better eating choices"*, and participant 6 remarked *"I have cut down from smoking one packet every two days to one pack a week since I started the program"*. According to Krebs, Prochaska and Rossi (2010), interventions for behaviour change in the workplace have produced significant results with participant smoking cessation. This illustrates that WHWP with health-related primary outcomes may produce secondary outcomes such as changing the behaviour of smoking at the workplace.

Finally, the WHWP was implemented at a workplace where not all employees received it; however empathy was created where suggestions were made for the entire workplace to have it. In this study there was a strong indication that the participants had confidence that the entire workplace would reap the benefits if the WHWP was made available to them. Comments such as *"I believe that everyone in the office area should be doing the program together, therefore promoting synchronised activity across the entire workplace, and also incorporate team challenges and team building activities"* (participant 30), *"I would like to see everyone in the office doing the program, this program would demonstrate to them how quickly forty five minutes passes"* (participant 49), and *"this program should be available permanently to all administration staff"* (participant 7). Simply educating employees about the benefits from initiating a WHWP demonstrated the extensive value and potentially lasting effects that such a program can generate.

## **Conclusion**

Due to the fact that adults spend a significant portion of their life at work, the workplace serves as an ideal setting to educate employees about healthy behaviour and behaviour change. The WHWP implemented in this study was effective in educating employees on how regular physical activity can be integrated into their workday, rather than simply depending on standardised huff and puff methods. Tangible WHWP outcomes such as physical activity, body weight, metabolic risk factors, and cardiovascular fitness often dominate WHWP outcomes, yet limited evaluation of these outcomes has led to inconclusive reports. The identification of intangible WHWP outcomes is often an oversight in program evaluations, which arguably is to the detriment of organisations and associated employees. This study demonstrates the social and emotional health benefits that a WHWP can bring to individuals and groups within a workplace. Organisational benefits from the WHWP were most noticeable through the development of workplace culture and workplace morale. Both of these outcomes were instrumental in patterning positive behaviour change, habit change, and habit development. Importantly, work productivity was not jeopardised during the implementation of this WHWP, which is commonly a major deterrent for employers deciding to invest in workplace programs. This study provides future direction for educating adults in the workplace about the benefits of WHWP, and identifies the need for thorough evaluation of both

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tangible and intangible outcomes. To date this has not occurred, and consequently WHWP have produced limited findings, have attracted only a small percentage of the workplace, and have lacked sustainability.

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