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RESEARCH PAPER

The Working for Wellness Program: RCT of an Employee Well-Being Intervention

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Abstract This paper details the design and evaluation of a positive psychology-based employee well-being program. The effect of the program on well-being was evaluated using a mixed method design comprising of an RCT to assess outcome effectiveness, and participant feedback and facilitator field notes to assess process and impact effectiveness. Fifty government employees were randomly allocated to either an intervention or a control group (reduced to $n = 23$ for complete case analysis). The intervention group participated in the 6-week Working for Wellness Program and completed measures of subjective, psychological, affective and work-related well-being (SWB, PWB, AWB and WWB) at pre-intervention, post-intervention, and three and 6 month follow-ups. The control group completed the questionnaires only. As predicted, mixed ANOVAs revealed improvements in SWB and PWB for intervention group participants over time relative to control participants but these effects had reduced by time 4. There was a main effect of group on AWB in the predicted direction but no effect on WWB. Participant feedback indicated that the focus on strengths and group delivery were the most effective components of the program. Key issues were sample attrition and a lack of on-the-job support for change. Findings suggest employees can learn effective strategies for sustainably increasing their subjective and psychological well-being.

Keywords Employee well-being · Positive psychology · Strengths · Intervention research · Occupational health psychology · Positive mental health

1 Introduction

The study of employee well-being as a positive, psychological phenomenon is still in its infancy. Whilst research on mental health in the workplace is relatively common, research

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has generally taken a stress-and-strain approach to the development of well-being, "fixing what is wrong" rather than "developing what is right" (Schaufeli 2004, p. 514). Whilst it is important to mitigate the deleterious aspects of work, there is considerable opportunity for researchers to also examine how the workplace can be an effective conduit to employee well-being (Schaufeli 2004; Wright and Quick 2009). However, few workplaces include programs that promote positive psychological well-being (Page and Vella-Brodrick 2012). Mental health problems are a prevalent problem within the working population. For example, the 2007 Australian National Survey of Mental Health & Wellbeing showed 14.7 % of the Australian workforce had a history of major depressive disorder, with exposure rates greater for women (18 %) than for men (12 %) (Australian Bureau of Statistics 2007). In order to manage and prevent mental health problems, it is important for organisations to invest in the positive wellbeing of their employees. Working to improve positive mental health also makes good business sense. Happy employees are generally healthier, perform better at work, and have better relationships, including work relationships (Lyubomirsky et al. 2005; Page and Vella-Brodrick 2009), which benefits workplaces and societies in equal measure (Diener and Seligman 2004). Using a training-based methodology to help employees to acquire skills that promote positive mental health is also likely to be a relatively simple and cost-effective approach to employee wellbeing. Promoting positive traits, states and capacities is the cornerstone of positive psychology (PP) and related fields such as positive organizational behavior (POB) and positive organizational scholarship (POS). As has been well advanced in recent years, these applied, yet rigorous fields of research encourage a change in focus towards the promotion of positive individual and organizational functioning rather than just malady or malfunctioning (Gable and Haidt 2005).

This paper caters to both researchers and practitioners by describing the design and evaluation of an employee well-being program that cultivates employee strengths and optimizes employees' positive thought and behavioral capacities to enhance feelings of happiness and well-being. The study keeps with the PP tradition in incorporating longitudinal data and an experimental design. It is also relevant to organizational practice, demonstrating how an organization can implement a practical, yet evidence-based employee well-being program in a real world environment.

1.1 Using Strengths to Foster Well-Being: The Working for Wellness Program

The experience of personal or psychological well-being, defined here as the presence of positive feelings such as enthusiasm and joy (emotional well-being) and positive functioning, such as feelings of mastery and personal growth and strong interpersonal relationships (psychological well-being), is a key component of what it means to live a 'good' or 'full' life (Keyes 2005). It is also an important indicator for both organizational and societal health (Diener and Seligman 2004). Identifying and testing various strategies through which well-being can be improved has been a key research area within PP. One strategy that appears particularly promising is the promotion and development of people's strengths. The concept of *strengths* has been used in at least two ways: as the specific, positive character traits classified in the character strengths and virtues framework (CSV; e.g., gratitude, love of learning, curiosity, fairness; Peterson and Seligman 2004) and, more broadly, as any natural ways of thinking, feeling or behaving that are "authentic and energizing to the user [and that enable] optimal functioning, development and performance" (Linley 2008, p. 9). Simply possessing certain character strengths, including gratitude, curiosity, love, hope and zest is positively associated with well-being (e.g., Brdar

and Kashdan 2010; Park et al. 2004). In addition, applying one's strengths can lead to increases in well-being, including lowered stress, greater self-esteem and improved vitality and positive affect, as has been shown in longitudinal research (Wood et al. 2011). More specifically, the use of character strengths in novel ways has been found to increase well-being and reduce depressive symptoms for up to 6 months and over and above the effects of other 'plausible' interventions, such as problem-solving, simple strength identification (but not application), expressing gratitude, and writing about early memories (Mitchell et al. 2009; Seligman et al. 2005). Moreover, individuals who use their strengths at work are more likely to be engaged and happy in their jobs (Harter et al. 2002). This in turn predicts other valued organizational outcomes, including business unit performance, turnover and productivity (Harter et al. 2002).

Now that research has supported that strength-use can be beneficial for personal and workplace well-being, it is important to ascertain *how* people can use their strengths (Linley et al. 2010). One already established route is through the *pursuit of self-concordant goals;* that is goals that are personally interesting and meaningful (Govindji and Linley 2007; Linley et al. 2010; Sheldon and Elliot 1999). Because strengths represent a person's authentic self and are, in themselves, intrinsically motivating (Peterson and Seligman 2004), goals that are congruent with one's strengths are more motivating and enjoyable. Linley et al. (2010), for example, found that using strengths facilitated participants' progress towards goals, which in turn, predicted psychological need satisfaction (needs for competence, autonomy and relatedness, as per Self-Determination Theory or SDT (Deci and Ryan 1985; Deci and Vansteenkiste 2004) and higher levels of SWB.

Three other plausible routes, which are empirically related to well-being and theoretically related to strengths, include *crafting* one's job to be more in line with one's strengths, balancing one's skills and strengths with optimal levels of challenge to facilitate *flow*, and using one's strengths in *relationships*.

Job crafting refers to efforts by employees to change the way they do their job (what they do and who with) or how they perceive their job (e.g., as more or less in line with their values; Wrzesniewski and Dutton 2001). Research has found that employees who craft their jobs to be more in line with their passions, interests and values (i.e., their authentic strengths) find more meaning, enjoyment and satisfaction in their work (Berg et al. 2010; Wrzesniewski 2003; Wrzesniewski and Dutton 2001)—all fundamental aspects of well-being.

Applying strengths, which can incite feelings of invigoration and excitement, a yearning for the activity to continue and a sense that the activity is worth doing for its own sake (Linley 2008; Peterson and Seligman 2004), may also be an important conduit to flow. *Flow* is a highly enjoyable and intrinsically motivating state of mind that stems from being fully absorbed in an activity (Bakker 2005; Csikszentmihalyi 1990). In particular, research has found flow to arise from activities that represent the optimal balance between one's unique skills (akin to strengths) and the amount of challenge in a given activity, giving rise to positive affect and satisfaction (Csikszentmihalyi and LeFevre 1989; Fritz and Avsec 2007). Waterman (2005) found that flow-inciting activities, defined as 'high liked-high effort' activities, facilitated feelings of enjoyment and personal expressiveness (i.e., "this is the real me"), both of which define a character strength (Peterson and Seligman 2004).

Relationships are another important route through which strengths can be meaningfully applied. Close relationships provide a supportive social environment whereby a person can meet their intrinsic psychological needs, thereby allowing for optimal growth and well-being (Demir and Özdemir 2010; La Guardia and Patrick 2008). Many strengths of character are other-focused. For example, the character strengths of love, forgiveness,

gratitude and kindness are often actualized through interactions with others, which in turn can enhance well-being (McCullough et al. 2002; Otake et al. 2006).

1.2 The Current Study: Aims and Hypotheses

The current study builds on this body of research to develop a positive, strength-based employee well-being program called the Working for Wellness Program. The program was designed to help participants to identify and apply their strengths, by striving for self-concordant goals, crafting their jobs, getting into flow, and cultivating relationships in order to enhance well-being. The effect of the program on subjective, psychological and work-related well-being was evaluated using a mixed method design comprising of (1) an RCT to assess outcome effectiveness, and (2) participant feedback and facilitator field notes to assess process and impact effectiveness. This approach to program evaluation goes beyond outcome effectiveness and provides insight into *how* effects were or were not achieved. Whilst highly regarded, it is seldom undertaken in intervention research (Randall et al. 2007; Steckler and Linnan 2002).

It was hypothesized that program participants would experience significant increases in both general well-being (SWB, PWB) and work-related well-being (AWB, WWB) over time, in comparison to a control group. The process and impact evaluations were of an exploratory nature and sought to identify strengths and limitations of the program, rather than merely ascertaining whether or not the program was effective in enhancing well-being.

2 Method

2.1 Participants

The study was conducted in a large government agency in Australia, which had approximately 950 employees at the time of the study. The sample ($N = 50$) represented the diversity of the organization, including both customer service and processing employees (e.g., call centre, branch staff) and corporate employees (e.g., HR, marketing and communications. The majority of the sample were female (73 %), with a mean age of 39.7 years (SD = 10.0 years; range = 21–57 years). Participants were permanently employed, working mostly full-time (94.6 %), on average, 38.8 (SD = 5.8) hours per week, with a mean tenure of 8.9 (SD = 10.6) years. Participants' flow through the study, as well as the research procedure, is illustrated in Fig. 1. As shown, 13 employees (26 %) did not complete the time 2 survey. Of these, four did not complete the survey due to their resignation from the organization prior to the second wave of data collection (all from state headquarters; two from each experimental group). Eight were branch staff and five (one, excluding those who resigned) were state headquarters employees. Informal discussions with branch managers indicated that branch staff had been too busy to complete the time 2 survey. Only minimal attrition occurred at times 3 and 4. However, due to the losses at time 2, only 23 participants completed all four outcome evaluation surveys (10 control group; 13 intervention group).

2.2 Measures

Page and Vella-Brodrick's (2009) theoretical model of employee well-being was used to select appropriate measures. The model includes subjective well-being (SWB) and workplace well-being (WWB) as indicators of 'positive feelings' and psychological

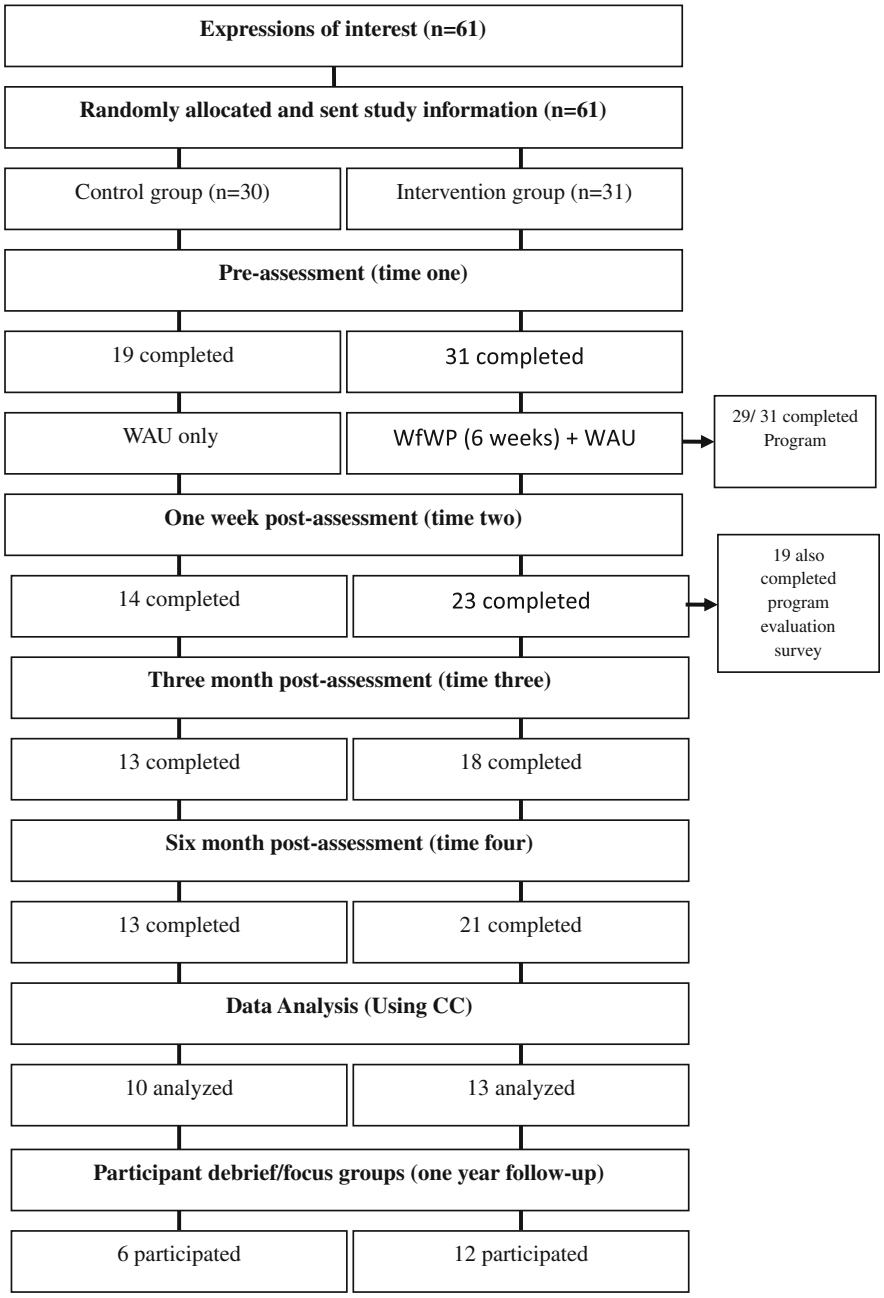

Fig. 1 Participant flow through the Study. *Note WAU* work as usual, *WfWP* Working for Wellness Program, *CC* complete case analysis

well-being as indicators of 'positive functioning'. A multidimensional approach to well-being measurement is in line with current conceptualizations of well-being (Kashdan et al. 2008; Keyes 2005).

2.2.1 Satisfaction with Life scale (SWLS)

The five-item SWLS is a measure of cognitive SWB or life satisfaction (Diener and Emmons 1985; Diener et al. 1999). The SWLS has acceptable levels of internal reliability, temporal stability and discriminant validity (Diener and Emmons 1985; Pavot and Diener 1993). The scale correlates positively with other measures of SWB, and negatively with measures of psychopathology (Pavot and Diener 1993). In the current sample, average internal consistency, using Cronbach's alpha, was .90 across time points.

2.2.2 Positive and Negative Affect Schedule (PANAS)

The affective component of SWB was measured using the 20-item PANAS (Watson et al. 1988). To assess trait affect, participants were instructed to rate each item according to how they felt generally (Watson et al. 1988). Responses were recorded on a five-point Likert scale from *very slightly or not at all* to *extremely*. Watson et al. (1988) reported excellent internal consistency for both the PA and NA scales (PA α range = .86–.90; NA α range = .84–.87). In the current sample, average internal consistency was .89 across time for both PA and NA.

Together, the SWLS, PA and NA have previously been used as an aggregate measure of Diener's (1984) SWB by summing SWLS and PA, and subtracting NA (Linley et al. 2010; Sheldon and Elliot 1999). Prior to forming a composite SWB measure, the validity of this approach was checked using principal components analysis (PCA). All three variables loaded on a single factor with a one factor solution accounting for 57.5, 65.0, 61.0 and 73.8 % of the variance over the four time points respectively (loadings > .70). This supported the use of a composite SWB measure.

2.2.3 The Workplace Well-being Index (WWBI)

Workplace well-being, or satisfaction with work domains, was measured using the WWBI (Page 2005). Both Page (2005) and Grant et al. (2009) have reported excellent levels of internal consistency (α = .90). Example items are "How satisfied are you that your work allows you to use your abilities and knowledge?" "How satisfied are you with the meaningfulness of your work?". Responses were recorded on an 11-point Likert scale from *completely dissatisfied* to *completely satisfied*. Items were averaged to create an overall WWBI score (Page 2005). Average internal consistency for WWBI in this study was .94 across time.

2.2.4 The Affective Well-Being (AWB) Scale

Work-specific or state affect was measured using the 35-item AWB scale (Daniels 2000). The AWB scale depicts five axes on the Circumplex model: anxiety-comfort (e.g. "anxious", "relaxed"), depression-pleasure (e.g., "miserable", "happy") bored-enthusiastic (e.g., "sluggish", "motivated"), tiredness-vigor (e.g., "fatigued", "alert"), and angry-placid (e.g., "annoyed", "at ease"). Daniels' (2000) found support for the five-factor solution using confirmatory factor analysis in two separate validation samples. Internal reliabilities of the subscales ranged from .79 to .88 in the two samples. To assess state affect, participants were asked how they had felt over the last week. A composite AWB scale was utilized to minimize the number of variables in the study, thus minimizing the likelihood of Type I error. An average AWB score has been used in other studies with

acceptable reliability (e.g., Rego et al. 2009). In the current study, average internal consistency for AWB was .94 across time.

2.2.5 Scales of Psychological Well-Being (SPWB)

PWB was measured by the 42-item SPWB (Ryff 1989). The SPWB contains six dimensions (self-acceptance, personal growth, environmental mastery, autonomy, purpose in life, and positive relations with others). Agreement was recorded on a seven-point Likert scale from *strongly disagree* to *strongly agree*. Although Ryff (1989) reported good internal consistency and test–retest validity for each of the sub-scales, some have questioned the reliability of the factor structure (e.g., Abbott et al. 2006; Springer and Hauser 2006; Springer et al. 2006) This was also a problem in the current study. As such, a composite PWB score was utilized to obtain a more reliable indication of PWB, as recommended by Springer et al. (2006). This was supported in the present data by a PCA. The total scale was more internally consistent than the individual subscales (average $\alpha = .90$ across time for the single scale compared to e.g., $\alpha = .52$ personal growth and $\alpha = .69$ for environmental mastery). Example items were: "In general, I feel I am in charge of the situation in which I live" and "I have a sense of direction and purpose in life".

2.2.6 Demographics

Demographic variables included age, marital status, gender, education level, work location (branch or state headquarters), employment and contract status (permanent/temporary; full-time/part-time), number of hours worked per week, and tenure.

2.3 Procedure

The study was approved by Monash University's Human Research Committee. Participants were recruited via advertisements in the host organization's newsletter. Consenting participants were randomly allocated to a control or an intervention group using an online random allocation system (random.org). Baseline (time 1) measures were completed online. Participants who could not access the internet at work (e.g., branch staff) completed a paper-and-pencil survey. The intervention group participated in the 6-week Working for Wellness Program (1 h session per week during their normal working week). Control group participants did not receive an intervention and completed the four questionnaires only. Three sets of post-intervention outcome evaluation data were collected. Process and impact evaluation data were collected from intervention group participants one week after the time 2 outcome evaluation survey, using a program evaluation survey. The slight time delay was intended to reduce the effect of common method variance and social desirability responding. Data were collected anonymously and paired at each time point using participants' anonymous, self-selected identifiers.

2.3.1 The Intervention

Table 1 provides an overview of the Working for Wellness Program, including example activities.

The program consisted of six, 1 h, small group-based sessions. Each session was facilitated by the first author according to a set training manual to ensure consistency across groups. Participants focused on their strengths and learnt from their best (or peak) experiences, to

Table 1 The working for wellness program: session by session overview

Topic	Brief overview of session content	Homework
1. What is Workplace Well-being?	Introduced to program content. Discussed nature of well-being and rated their current level of well-being at work. Introduced to the importance of intentional activities in enhancing happiness (SHM)	Completed VIA signature strengths test
2. Knowing and Using Strengths	Explored top 10 character strengths, looking for real life evidence. Discussed current levels of application. Employed job crafting as a method for applying strengths at work	Acted and reflected on strength-based job crafting strategies
3. Goal Striving	Explored the relationship between goal striving and well-being. Set self-concordant (strength-based) goals and action plans. Action plans drew on hope theory (goals, agency thinking, pathway thinking; Snyder 2002)	Acted and reflected on strength-based goal striving plan
4. Flow	Discussed how to cultivate flow at and outside of work, including the relationship between flow and strengths. Set specific strategies for increasing time spent in flow	Acted and reflected on strength-based flow strategies
5. Relationships and Altruism	Discussed strength-based strategies for optimizing relationships at and outside of work, drawing on peak experiences	Acted and reflected on strength-based relationship strategies
6. Consolidation of Learning	Reviewed the program content and reflected on experiences associated with the program. Created personal action plans to continue progress after program (based on program insights)	Acted on personal action plans

SHM sustainable happiness model, *VIA* values in action. Each session was 1 h in duration and delivered to small groups (6–8 participants per group)

increase motivation and facilitative change, as per Appreciative Inquiry (Cooperrider 1986; Cooperrider et al. 2008). Care was taken to optimize well-being and learning outcomes for participants by facilitating sessions in a positive, supportive and affirming environment (Joseph and Linley 2006) and providing opportunities for autonomy and group discussion (Ryan and Deci 2000; Vella 2000). The facilitator recorded adherence to this approach using field notes and ratings (five-point Likert scale where 1 = poor adherence and 5 = strong adherence), which was completed at the end of each session. Notes and ratings were also taken regarding other elements of delivery, including fidelity and participant attendance. This data formed part of the process evaluation. Implementation was similar to traditional workplace training and thus had good ecological validity (Flay et al. 2005).

2.3.2 Training Materials

Activity books and resource packs were provided to participants as training materials and included the program activities and relevant background information, including theories, tips and resources, respectively. Intervention group participants received the training materials in their first session. Control group participants received the materials at the conclusion of the study.

2.3.3 Pilot Session

An abbreviated version of the program was presented to a positive psychology interest group, comprising of both professionals and academics, to pilot the concepts, solicit peer feedback and make final revisions to the program prior to implementation.

2.3.4 Feedback and Debriefing Session

Participants were invited to a debriefing and feedback focus group, facilitated by the first author, one year after the program had commenced. It included a brief presentation of results, an opportunity for both groups to reflect on their experiences with their peers, and the collection of additional participant feedback. A trained observer recorded the feedback and these data were analyzed as part of the process evaluation.

3 Results

3.1 Data Screening and Preliminary Analyses

Table 2 presents correlations between all variables. Hypotheses were tested using a 2 by 4 mixed ANOVA design, including group (intervention versus control) by time (pre-intervention and 1 week, 3-month, and 6-month follow-up). SPSS version 16 was used to screen and analyze data. Prior to analysis, data were checked and ANOVA assumptions confirmed.

A series of independent sample t-tests conducted on all baseline measures confirmed random group assignment—there were no pre-existing differences in well-being between groups or difference between participants who completed the online versus paper-and-pencil versions of the survey on any variables. Chi Square and t-tests showed no differences between those that completed all four surveys ($n = 23$) and those who did not ($n = 27$) in terms of group or demographics except that those who dropped out were more likely to work in a branch office than state headquarters ($\chi^2 = 12.24$, $df = 1$, $p = .00$).

3.2 Outcome Evaluation: How was the Program Effective?

Means and standard deviations for groups over time are presented in Table 3.

3.2.1 Psychological Well-Being and Subjective Well-Being

Mixed method ANOVAs revealed a significant group by time interaction for PWB, Wilks' Lambda = .85, F (3, 17) = 1.03, $p = <.05$, partial $\eta^2 = .39$ and for SWB, Wilks' Lambda = .55, F (3, 18) = 4.87, $p = .01$; partial $\eta^2 = .45$, both are large effects (Cohen 1988). This indicated that the degree of change from time 1 to time 4 in these variables was dependent on group (intervention or control group). Specifically, participants in the intervention group experienced significant improvements in PWB and SWB across time compared to controls.

3.2.2 Work-Related Well-Being

A mixed method ANOVA revealed no significant time by group interaction for WWB. The main effects for time and group were also non-significant. The group by time interaction for AWB was not significant. There was no significant main effect for time. However, the main effect of group on AWB *was* significant, $F(1) = 7.96$, $p = .01$, partial $\eta^2 = .33$, and also a large effect (Cohen 1988). Participants in the intervention group experienced significantly more positive work-related AWB than those in the control group, across time.

Table 2 Correlations between variables across four time points

Measure	SWB2	SWB3	SWB4	PWB1	PWB2	PWB3	PWB4	WWB1	WWB2	WWB3	WWB4	AWB1	AWB2	AWB3	AWB4
SWB1	.66**	.13	.59**	.82**	.64**	.15	.57**	.47**	.13	−.16	.23	.58**	−.11	−.17	.26
SWB2		.35*	.60**	.63**	.78**	.29	.50**	.25	.39*	.13	.35*	.22	.49**	.06	.42*
SWB3			.18	.09	.16	.82**	.01	.16	.36*	.30	.32	.03	.16	.40*	.17
SWB4				.64**	.54**	.24	.84**	.33*	.26	.17	.34*	.31	.04	.07	.43**
PWB1					.79**	.27	.70**	.43**	.025	−.19	.13	.63**	−.05	−.12	.23
PWB2						.30	.58**	.31	.25	.06	.24	.25	.26	−.01	.30
PWB3							.22	.25	.41*	.24	.22	.06	.13	.34*	.06
PWB4								.49**	.29	.00	.28	.47**	.09	−.05	.43**
WWB1									.42**	−.12	.55**	.48**	−.05	−.08	.24
WWB2										.35*	.56**	−.06	.55**	.20	.29
WWB3											.52**	−.30	.23	.71**	.46**
WWB4												−.01	.15	.29	.58**
AWB1													.15	−.13	.31
AWB2														.30	.39*
AWB3															.51**

SWB subjective well-being, *PWB* psychological well-being, *WWB* workplace well-being, *AWB* work-related affective well-being

* p<.05, **p<.01

Table 3 Estimated marginal means for both groups showing well-being across time

	Time 1		Time 2		Time 3		Time 4	
	Intervention	Control	Intervention	Control	Intervention	Control	Intervention	Control
PWB	66.10 (12.73)	71.61 (13.82)	72.60 (9.52)	70.19 (13.12)	69.01 (12.57)	70.81 (10.97)	68.52 (14.33)	66.45 (12.25)
SWB	32.19 (28.00)	52.69 (20.92)	51.68 (25.36)	43.21 (24.80)	42.83 (34.28)	45.77 (23.62)	46.11 (38.85)	38.71 (39.56)
WWB	61.73 (23.36)	71.14 (15.43)	61.28 (16.45)	65.29 (20.54)	59.78 (19.00)	50.10 (25.56)	57.56 (18.03)	58.75 (30.60)
AWB	66.38 (14.85)	66.51 (6.8)	74.09 (8.34)	56.59 (17.03)	64.68 (12.94)	52.27 (18.11)	70.21 (14.763)	54.82 (16.02)

All data has been converted to % of Scale Maximum to allow comparison across measures that use with different rating scales. All numbers represent group means (standard deviation in brackets)

3.2.3 How and to What Extent was the Program Effective?

The process and impact evaluation was adapted from the recommendations and procedures of Murta et al. (2007), Steckler and Linnan (2002), and Randall et al. (2007) and used to help explain the outcome evaluation. Data were drawn from facilitator field notes and both quantitative and qualitative participant feedback. The quantitative process evaluation data (e.g., degree of learning, application and activity "fit") were subjected to descriptive analysis using SPSS. Qualitative data were collected through open ended survey and focus group questions (e.g., what participants liked most about the program). Patterns and themes in the qualitative data were identified deductively, interpreted at the latent level, and described using Braun and Clarke's (2006) thematic analysis approach. A latent approach can more adequately capture the richness of a dataset (Braun and Clarke 2006). The themes were re-coded and confirmed by an independent assessor.

In sum, all participants indicated that they learnt a great deal about their well-being during the program. All but two of the respondents considered themselves to be happier as a result of the program. This aligns with the outcome evaluation. Participants perceived slightly more change in their general well-being than their work-specific well-being, also supporting the outcome evaluation. Interestingly, focus group data indicated that some spillover may have occurred. Participants reported that activity changes outside of work improved general well-being, which, in turn, improved how participants felt at work (Table 4).

Interpretation of the qualitative data (refer to Table 5) suggested that the program had a positive effect on employees in terms of improved self-awareness and self-acceptance, goal pursuit and attainment (which in itself was satisfying), better employee relationships general positive feelings, and more positive states of mind (e.g., feeling happier, more confident, enjoying work). Two participants reported that the rise in self-awareness challenged their well-being at times, appearing to set up discrepancies between what was and could be (e.g., participants realized they could be happier at work than they were; see Table 5 for specific comments). For these participants, this led to feelings of frustration or disappointment, particularly when they felt they could not apply what they learnt at work.

According to the process evaluation, the intervention was delivered as planned, encouraged participants to engage in PP activities, focused on their strengths, and used a positive, affirming facilitation style. Slightly more emphasis was given to applying activities outside of work; this is what most participants tended to prefer (note: this preference was not quantitatively assessed but appeared in the field notes). The facilitator delivered all program activities with a high level of consistency across groups. Participants indicated high levels of both motivation and application during the program. Participant attendance was high across all six sessions. Therefore it appears participants were effectively engaged in the program. Taken together, data indicate satisfactory levels of internal and external validity.

In line with the SHM and the importance of self-concordant motivation in enhancing well-being (Lyubomirsky et al. 2005), results supported that the program was a good fit with participants' interests, values, and needs. Participants reported feeling motivated to continue to apply the activities. Participants enjoyed the program overall and perceived the program to be only a minimal burden on their time. Every participant said they would recommend the program to others and, hypothetically, would participate again if asked.

Strengths of the program included its content as a whole as well as the specific, strength-based activities. The style and format of the program (e.g., facilitation style) was also appreciated, particularly the opportunities for group discussion and peer-to-peer sharing.

Table 4 Outcome, process and impact evaluation: summary of key elements, method and results (quantitative)

Elements	Description/key questions	Measurement and analysis	Quantitative results
Outcome Evaluation	*Was the program effective?*	Outcome evaluation survey: PWB, SWB, AWB, WWB Mixed method analysis of variance (ANOVA)	Signification time by group interactions for PWB and SWB Significant main effect of group on AWB No significant effects for WWB
Impact Evaluation	*What was the impact of the program on participants in terms of learning and well-being outcomes?*	Program evaluation survey: How much have you learnt about your workplace well-being as a result of the program? (*Nothing* [1] to *A great deal* [7])# Do you feel happier as a result of the program? # (1 = *Yes*; 2 = *No* plus open comment box) How much do you feel your (a) workplace well-being and (b) general well-being has changed as a result of the program? # (Both: *No positive change* [1] to *Much positive change* [5])	Degree of learning: $M = 72.2$ %SM 17/19 (94.4 %) respondents felt happier as a result of the program. Workplace well-being change: $M = 52.75$ %SM General well-being change: $M = 58.3$ %SM See Table 5 for results of thematic analysis
Process Evaluation Participant recruitment and maintenance	*How were participants recruited? To what degree were participants maintained in the study?*	Field notes Survey response rates# and field notes	See "Method"
Reach	*What % of the population participated in the program? What % of the sample attended the intervention?*	% of target population reached# Attendance rates# (each session/person)	Population / Sample / TOTAL SHQ: 399.64 (41.87 %) / 31 (51.67 %) / 7.76 % Branch: 554.86 (58.13 %) / 29 (48.33 %) / 5.23 % TOTAL: 945.5 / 60 / 6.29 % Population and sample comparable $M = 80$ % participant attendance

Table 4 continued

Elements	Description/key questions	Measurement and analysis	Quantitative results
Fidelity	*Was the program delivered as planned (i.e., the quality and spirit intended)?*	Field notes: 1 to 5 ratings given by facilitator in each session in relation to#: Focus on strengths and peak experiences; Positive, affirming facilitation style that supported participants' autonomy; Focus on both work and home experiences	Focus on strengths (M = 5/5) Facilitation style (M = 5/5) Work and home focus (M = 3.5/5): Less emphasis on work experiences than planned (participant preferences: role autonomy issues limited application at work and participants more interested in application at home)
Dose delivered and received	*What dose was delivered (i.e., were all the activities within the program delivered?) To what extent did participants engage in the program?*	Field notes (dose delivered) # Program evaluation survey Motivation: (a) How motivated were you to apply the exercises and/or what you learnt in each session? (b) How motivated are you to CONTINUE applying the exercises and/or what you learnt in each session? (Both *Not at all*[1] to *Extremely* [7])# Retrospective application: How much did you apply the exercises and/or what you learnt in each session during the program? (*Did not apply* [1] to *A great deal* [7]) #	100 % of activities delivered within and across each session (one facilitator) Motivation during program: M = 75.3 %SM (Strengths = 75 %SM; Goals = 80.07 %SM; Flow = 71.3 %SM; Relationships = 78.7 %SM) Motivation to continue application post-program: M = 72.2 %SM (Strengths = 71.3 %SM; Goals = 78.7 %SM; Flow = 67.7 %SM; Relationships = 76.8 %SM) Application during program: M = 71.5 %SM (Strengths = 75 %SM; Goals = 75 %SM; Flow = 65.7 %SM; Relationships = 77.8 %SM)

Table 4 continued

Elements	Description/key questions	Measurement and analysis	Quantitative results
Participant attitudes	*What were participants' attitudes towards the program (content, process and general)?*	Program evaluation survey: How much did [each activity] fit with your interests, values etc.? (one item for each of the four PP activities) # How much did [each activity] meet your needs? (one item for each of the four PP activities) # What did you like/dislike about the program? What could be added or removed next time? What was hardest/easiest to apply? (open ended questions)* Was participation a burden on you time wise? (*No burden* [1] to *A huge burden* [7]) # Did you enjoy participating overall? (*Not at all* [1] to *A great deal* [7]) # Would you recommend the program to others? (*Yes/No*); # Hypothetically, would you participate again if asked? (*Yes/No*). # Specific focus group feedback: Why was there more change in terms of general well-being than work-specific well-being?* What would you like to see happen next?*	Fit with interests/values: $M = 73.8$ %SM (Strengths = 81.5 %SM; Goals = 71.3 %SM; Flow = 67.7 %SM; Relationships = 77.8 %SM) Fit with needs: $M = 76.7$ %SM (Strengths = 82.3 %SM; Goals = 82.3 %SM; Flow = 71.3 %SM; Relationships = 75.0 %SM) Burden on time: $M = 9.33$ %SM Enjoyment: $M = 93.5$ %SM 100 % of respondents would recommend the program to others and (hypothetically) would participate again if asked. See Table 5 for results of thematic analysis

This evaluation model was adapted from Nelson and Steele (2006), Murta et al. (2007), and Steckler and Linnan (2002). All items marked with # were subjected to descriptive analysis; items marked with * were subjected to thematic analysis. The program evaluation survey was completed at time 2 only; the outcome evaluation survey was completed at all four time points. Field notes were recorded by the facilitator at the end of each session

SHQ state headquarters staff, *Branch* branch staff, *PWB* psychological well-being, *SWB* subjective well-being, *AWB* work-specific affective well-being, *WWB* workplace well-being, *PP* positive psychology, M = average score, %SM = percentage scale maximum

Table 5 Qualitative themes, descriptions and example comments from open ended questions

Core themes	Sub-themes	Description	Example comment/s
Perceived impact of the program	Better self-awareness/self-acceptance	Improvements in self-awareness, understanding strengths; greater self acceptance, more positive self-view; benefits associated with more self-awareness (e.g., better decisions, better "fit")	As a result of the program I am "more conscious of my well-being and what I can do to positively influence it—both at work and generally. I am more aware of my strengths and activities I enjoy (from flow activities) and consequently am conscious of trying to incorporate this into what I do." (P14) "[The program] gave me a chance to recognize the things I do really well and to be proud of myself and try to be less critical of myself. It has helped with my confidence and self esteem and I am gradually feeling more assertive at work and less upset, or emotional". (P19)
	Building relationships	Improvements in relationships, getting to know others better	The well-being program helped me to "learn more about my co-workers outside of workplace." (P3) "As a result of this course I stopped and took time to evaluate my relationships; I listened more and responded to what people had to say and how they behaved. This course has also made me look at people's body language, something I really took for granted before". (P17)
	Goal achievement	Striving for or achieving goals	The well-being program helped me to "set goals and actually achieve them" (P3) "At the moment I am applying for a position in the Training and Development pool and I have successfully completed a 3 month assessment at work". (P18)
	Positive feelings/state of mind	Positive changes in feelings or state of mind (e.g., feeling happier, enjoying work more, more confident or motivated)	"The course has given me a new frame of mind on a daily basis. I feel more confident and enjoy coming to work." (P11) I liked "the overall message of striving for well-being at work and at home. I think sometimes people forget to aim for happiness and well-being. It is good to put well-being at the forefront of your mind, and this is what the program did." (P13) "Overall I do feel much happier at work now." (P19)

Table 5 continued

Core themes	Sub-themes	Description	Example comment/s
	Program challenged well-being	Program challenged well-being (e.g., setting up discrepancies between what is and could be)	"While working to enhance your ability to improve your well-being in your work and home life, the introduction of topics also worked to highlight what attributes/skills you were not using already. So, the course forces you to strongly self-evaluate, something that I didn't feel ready to do at the time. Of course, now the negatives have begun to turn positive." (P12) "When I was working on utilizing my strengths and goal striving during the program I did feel a bit depressed and down as I was not able to put them into practice at that time". (P19) "Using my strengths while still working in my current position [was challenging].[Also], how I feel, or think when something occurs that I do not agree with, i.e. trying to change the way I view change, and to talk or think more positively and less negatively". (P19) "The hardest thing has been flow. It has been difficult to get into flow in my current position". (P13)
	No impact on well-being	Program had no impact on well-being	"I was already happy with my overall work and life circumstances; the program did not make a significant difference to that… As a result of participating I have taken some time to assess my general situation but I will not make any major change as a result."(P15)
Evaluation of the program content and format	Positive comments about the program as a whole	General positive comments about the program as a whole	"I really enjoyed the program and thoroughly enjoyed participating. It was nice to have a bit of 'time out' from work, and to reflect on what I was doing, and where I was going." (P15) "I found all aspects of the program useful. Having had the time to reflect on this workshop I am so pleased that I was given the opportunity to participate… All of the learnings were easy to apply. I enjoy taking on new things [and] having abilities highlighted to me enabled me to run with them." (P17)

Table 5 continued

Core themes	Sub-themes	Description	Example comment/s
	Positive comments about the PP activities	Strengths was most liked, most useful or easiest to apply	"Analysis of strengths" was most useful as "this gave me a basis for deciding what activities will use my strengths more effectively." (P14) "Knowing and using strengths" was most useful… "Because it felt good to know I was doing something right". (P16)
		Goal striving activities were most liked, most useful or easiest to apply	"Goal striving was very useful and I will continue to use the methods I have learnt". (P13) "Goal striving was hardest to write but once [goals were] chosen, [goal striving] was the most useful and easiest to incorporate as I was happy with my plan/timeline". (P15)
		Relationships activities were most liked, most useful or easiest to apply	"Developing closer friendships with co-workers" was easiest to apply (p3) "Relationships and altruism" was most liked, most useful and easiest to apply (P11)
		Flow activities were least liked, least useful or hardest to apply	"The hardest thing has been flow. It has been difficult to get into flow in my current position". (P13) "Flow" was hardest to apply but "only at work I guess because other staff have needed to be attended to and they are not conducive to flow." (P16)
	Group interaction/ discussion	Interacting with others, group discussions, sharing experiences with others was liked or helpful	"Participating in well-being workshops and sharing experiences with other participants" was most liked about the program (P3) "Being able to discuss my feelings and experiences with the group. Also listening to how the program was helping others". (P10)
	Facilitator	Positive comments about the facilitator	"Loved [the facilitator's] easy listening approach." (P17) "I found the person who ran the workshops… highly motivating, excellent people skills, very approachable and a good public speaker." (P18)

Table 5 continued

Core themes	Sub-themes	Description	Example comment/s
	Not enough time	Not enough time in each session	I would have liked to have "more time for group discussion as I felt we were on the clock all the time." (P10) It was "hard to find the time to complete the 'at home' tasks around everything else that was happening. Saying that however, they were very useful and I'm glad I made the time to complete them." (P15)
	Not enough sessions	Not enough sessions	"I think six, hour long sessions wasn't enough. It is a long process and I think I needed more coaching to change my way of thinking." (P12) "I personally feel that we could have done with at least another four to six sessions, so that some of the concepts/models could have been further explored." (P16) "I think I would have preferred it if [the program] was eight to 10 weeks long as I felt that I needed more time to understand my situation and others. I also felt that we were just getting somewhere and then it ended."(P18)
Focus group feedback	More change in GWB than WWB	Why was there more change in terms of GWB than WWB?	Autonomy, control and clarity: More opportunities/autonomy/flexibility to apply findings outside of work than at work; Not enough autonomy or clarity in work role to know when and how they could work strengths into their jobs (a key component of program). Personal choice: More responsibility and interest in applying activities outside of work (which was more important to them) Home to work facilitation: Improving well-being outside of work then had a positive spill-over effect—benefiting how one felt and behaved at work.

Table 5 continued

Core themes	Sub-themes	Description	Example comment/s
	Next steps	What would you like to see happen next?	Broader roll out (e.g., compulsory for all staff; control group staff); Include well-being modules and life skills workshop as part of training and development suite (to complement technical skills) Put support/learning transfer mechanisms in place: (1) Manager training/tool kits (both to support staff and so managers can enhance their own well-being); (2) Refresher courses; (3) Peer support networks and working groups to teach others, refresh skills, continue tackling goals; support change.

P participant, *GWB* general well-being, *WWB* workplace well-being

This further supports that the program was delivered in the spirit and style intended. Participants felt more in-depth learning and discussion would have been enabled if there had been more (and longer) sessions in the program.

Focus group data, conducted one year post-program, indicated that intervention group participants experienced a number of limitations in applying what they learnt at work. This included a lack of role clarity and autonomy support. Focus group participants also suggested a number of next steps, in terms of implementation, including the provision of various mechanisms to support learning and growth such as manager training and peer-support groups.

4 Discussion

There are very few interventions available for use in a workplace setting that focus specifically on enhancing well-being through the identification and application of employee strengths. In the current study, a positive, strength-based employee well-being program was designed and evaluated using a mixed method design. Results were quite positive overall although must be interpreted cautiously given the considerable amount of sample attrition. Employees who participated in the program reported significant gains in SWB, PWB and work-specific AWB over time. Control group participants did not experience these increases. It is notable that the program appeared to affect multiple aspects of well-being; that is, improving both positive feelings (SWB and work-specific AWB) and positive functioning (PWB). This is important as previous research has suggested that both positive feelings and positive functioning are markers of well-being (e.g., Kashdan et al. 2008; Keyes 2005).

The results found in this study lend some additional weight to evidence suggesting that well-being can be increased through intentional, individual effort (e.g., Seligman et al. 2005; Sheldon and Lyubomirsky 2006). Specifically, the current study supports and extends past research in showing that striving for self-concordant goals, job-crafting, getting into flow and cultivating relationships are effective activities for enhancing well-being, and, unique to this study, that character strengths can be mobilized through these mechanisms.

A number of factors may explain the effects found in this study. First, results may be explained by the program's focus on intentional activities, particularly those that are effortful, self-concordant and continuously applied, as purported by the SHM (Sheldon et al. 2009; Sheldon and Lyubomirsky 2006). Second, results may be explained by participants' high levels of fit, motivation and application with each of the program activities, which may have encouraged more sustained effort over time (Sheldon et al. 2009). Third, the multi-faceted intervention approach may have helped to facilitate program effectiveness. Fordyce (1977, 1983) and Luthans et al. (2006) also had success with multifaceted approaches. A multifaceted program may have been effective in this study because it exposed participants to multiple activities they could engage in, thus providing a sense of variety and choice (autonomy)—key factors within various well-being theories (e.g., Ryan and Deci 2000; Sheldon and Lyubomirsky 2006).

Another effective mechanism in the program may have been the delivery of the program in small groups, which allowed participants to share their experiences in peer-to-peer discussion. This is congruent with previous research. For example, talking with others has been found to be an important vehicle for capitalizing on and savoring positive experiences, which in turn benefits well-being (Gable et al. 2004; Langston 1994). Talking about

positive experiences—which generally involves the expression of positive emotion—may also benefit others in a group through the process of emotional contagion and crossover (Hartel and Page 2009; Hatfield et al. 1994). The emphasis on group discussion also allowed participants to provide support to others, thus possibly engendering the benefits of giving (Post 2005). These effects may not have been evident had the program focused on stressors rather than positives. For example, Beehr et al. (2010) found that social support could harm psychological and physical health when it drew a person's attention to stress in the workplace.

The program appeared to have more of an impact on general well-being than work-specific well-being. Assuming that WWB is associated with opportunities to apply activities at work, the lesser impact may have been because participants tended to apply activities in leisure time, perceiving less opportunity to, or interest in, applying them at work. The lesser effect may also be because WWB is influenced more by organizational factors (e.g., climate, role flexibility) than by personal factors. However, the program did have some impact on positive work-related AWB. This may suggest some participants did find opportunities to apply activities at work. Or else activities that participants pursued outside of the workplace may have benefited their well-being at work through the process of spill-over (where feelings in one domain cross over into another; e.g., Bakker 2005); home to work facilitation (Allis and O'Driscoll 2008) or effort-recovery (Sonnetag 2003).

Findings suggest that employees can learn effective strategies for sustainably improving personal well-being. This finding is encouraging for organizations and health professionals striving to promote employee well-being as a positive psychological phenomenon in addition to the mitigation of psychological or physical risk. The results are also important from a practical perspective, suggesting that individual-level interventions, delivered in the workplace, can have positive effects on both general and work-related well-being. For many organizations restricted by time or budget, as was the organization in this study, individual-level interventions may be more cost-effective than large-scale organizational well-being initiatives.

As in many intervention studies, the current study was limited by participant attrition. This in turn reduced statistical power and prevented further analysis. This may also reflect the reality of intervention research in organisations that are typically time poor. The somewhat lengthy survey that participants were asked to complete over an extended period of time may have contributed to the high attrition. Multiple measures of well-being were included to capture a comprehensive picture of well-being change (Keyes 2005). Tools now exist that combine multiple dimensions of well-being into single, parsimonious measures (Keyes et al. 2008; Tennant et al. 2007). Such measures could provide a more favorable option in future studies. A further limitation was that potential mediating and moderating variables, such as strengths use, flow, role autonomy and managerial effectiveness were not included because of the already lengthy survey. Finally, this study did not include an active control group, which means we cannot rule out the possible confounding factors such as social interaction.

Future studies should include an active control group and measure potentially important mediating and moderating variables to control for social factors and further ascertain the factors that help or hinder workplace well-being programs. Future studies should consider building in learning transfer mechanisms such as a peer support or 'buddy' program, manager training or toolkits, or group coaching. These options would also leverage one of the key strengths of the intervention, namely: fostering relationships. More, or longer, sessions would also be preferable, as suggested by participants. Given that the efficacy of such programs now has initial support, it is important to replicate the findings and include

other potentially important outcome variables (e.g., the effect on performance, psychological injury, absenteeism, or retention).

5 Conclusion

Designing and testing methods that can reliably and sustainably increase employee well-being is a key area for future research. This study describes the results of one such study, utilizing a positive focus, longitudinal data, and an experimental design. It is hoped that this study encourages further research that extends and builds upon these results and guides the development of effective workplace well-being programs with the aim of creating happier and healthier workplaces.

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