An Examination of Individual and Work-related Factors Influencing Program Success of an Employee Health Intervention

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Abstract

An Examination of Individual and Work-related Factors Influencing Program Success of an Employee Health Intervention

By Samantha A Penney

Some studies have assessed the impact of workplace interventions on increasing recovery experiences and reducing stress and strain through training (e.g., Hahn, Binnewies, Sonnentag, & Mojza, 2011; MacDonald, 2012; Stevens, 2010). However, little research has examined factors influencing the effectiveness of such interventions. The training literature states that individual and situational characteristics can influence the effectiveness of a training program and influence behaviour change (Mathieu & Martineau, 1997; Noe & Schmitt, 1986). Therefore, using two separate samples of archival data of 119 and 117 employees from 15 and 10 organizations, I examined several individual and work-related factors that may influence the effectiveness of an employee health intervention (i.e., Achieving Balance in Life and Employment; ABLE program), which aims to increase recovery experiences and reduce stress and strain. Results of this study provide preliminary evidence that individual and work-related variables can influence one's success in an employee health intervention.

An Examination of Individual and Work-related Factors Influencing Program Success of an Employee Health Intervention

Approximately 27% of workers in Canada describe their lives as ‘quite a bit’ or ‘extremely’ stressful, and of these 27%, 62% of them identified their work as the primary source of their stress (Statistics Canada, 2011). Stressful work experiences are associated with strain in terms of poor psychological well-being as well as increased health problems (Sonnentag & Frese, 2003). Research suggests that recovery experiences outside of work can assist in improving individual well-being and resources and forestall further resources from being depleted (Geurts & Sonnentag, 2006; Sonnentag & Bayer, 2005).

Although a few studies have assessed the extent to which interventions might be able to increase employees’ recovery experiences (e.g., Hahn, Binnewies, Sonnentag, & Mojza, 2011; MacDonald, 2012; Stevens, 2010) and an abundance of studies have examined stress management interventions (for a meta-analysis of the literature, see Richardson & Rothstein, 2008), little research has examined the factors that influence the effectiveness of these intervention programs in increasing recovery experiences and reducing stress and strain. Based on the training motivation literature, the extent to which an intervention is successful in increasing recovery experiences and reducing stress and strain may be influenced by several individual, situational, and program related factors (Colquitt, LePine, & Noe, 2000; Noe & Schmitt, 1986; Velada, Caetano, Michel, Lyons, & Kavanagh, 2007). Therefore, in the present study, I assessed individual and work-related factors that might influence the effectiveness of an employee health intervention

(i.e., Achieving Balance in Life and Employment; ABLE) for employees in two separate archival samples. Specifically, I examined the extent to which engagement in the program, procrastination, perceived organizational support, and job control may influence the effectiveness of the ABLE intervention, which focused on increasing employees' recovery experiences and reducing their levels of stress and strain through education and individualized coaching.

Recovery

Recovery is considered a process that works to restore individual well-being and resources (Sonnentag & Bayer, 2005) through engaging in non-work activities (ten Brummelhuis & Bakker, 2012). Recovery is important to employees' well-being because long-term exposure to high workload (and stress) without recovery can potentially lead to job strain (e.g., psychological strain) as well as other health problems (Kivimäki et al., 2006; McEwen, 1998). Sonnentag and Fritz (2007) identified four types of recovery experiences: psychological detachment (i.e., forgetting about work), mastery (i.e., engaging in activities outside of work that are challenging and can result in growth), relaxation (i.e., engaging in low-stimulation activities), and control (i.e., experiences involving feeling in control of one's non-work life). Based on these four recovery experiences, Sonnentag and Fritz (2007) created the 16-item Recovery Experience Questionnaire (REQ) in order to measure self-reported recovery experiences. Stevens (2010) expanded Sonnentag and Fritz's (2007) REQ scale through scale development, identifying six additional types of recovery experiences: physical activity, planning, social affiliation, experience of fun/humour, hope/optimism, and self-reward. Physical

activity refers to experiences involving engaging in high activation activities, whereas planning refers to experiences involving organizing and planning events. Social affiliation refers to socializing and affiliating with other people. Experiences of fun/humour refer to recovery experiences that are enjoyable and entertaining. Hope/optimism refers to experiences that focus on positivity, future orientation, and optimism. Finally, self-reward refers to experiences that entail providing tangible rewards to oneself during non-work (Stevens, 2010).

Recovery and Employee Well-being

An abundance of studies have demonstrated that there is a negative relationship between job stressors and poor employee well-being (for a review, see Sonnentag & Frese, 2003). When exposed to job-stressors and demands, an individual's physical and mental resources gradually become depleted (Meijman & Mulder, 1998). Recovery experiences can prevent further resources from being lost and assist in restoring lost resources (Sonnentag & Fritz, 2007). Hence, engaging in recovery experiences tend to be associated with having lower job stress and strain (Stevens, 2010). Thus, when individuals return to work following non-work time, they will have recovered from previous stressors, their resources will be replenished (Hobfoll & Shirom, 2001) and they will feel physically and mentally refreshed (Sonnentag & Kruel, 2006). Given the positive effects of recovery on improving well-being and reducing job stress, it would be beneficial to be able to utilize interventions to increase recovery experiences as a means of improving employee health (in terms of reducing stress and strain).

Interventions

A few studies have shown that interventions may be effective in increasing employees' recovery experiences (e.g., Hahn et al., 2011; MacDonald, 2012; Stevens, 2010). Hahn et al. (2011) demonstrated that a two-day recovery training program resulted in increased recovery experiences (i.e., psychological detachment, relaxation, mastery, and control) one and three weeks after the intervention, and resulted in reduced levels of perceived stress three weeks after the intervention. Stevens (2010) found that 6 of the 10 recovery subscales (i.e., psychological detachment, relaxation, control, social affiliation, physical activity, and hope/optimism) increased from Time 1 to Time 2 in the participants in the treatment group, when compared to participants in the waitlist control group. Additionally, she found that recovery experiences partially mediated the relationship between a 12-week employee health intervention and employee strain, such that the intervention was associated with increased recovery experiences, over the 12 weeks, which in turn was associated with decreased strain. Similarly, MacDonald (2012) found that 5 of 10 recovery experiences (i.e., mastery, physical activity, hope/optimism, fun/humour, and self-reward) could be increased from Time 1 to Time 2 through individualized coaching over a 10-week phone-based intervention program. Additionally, numerous studies have shown that interventions can reduce stress in occupational settings, a meta-analysis of 55 interventions by Richardson and Rothstein (2008) indicated that perceived stress could be reduced through various stress management interventions (i.e., cognitive-behavioural, relaxation, multimodal, and alternative).

Although an abundance of studies have demonstrated that occupational health interventions are effective, there are also some meta-analyses that argue that the success

of occupational health interventions are much more variable. For example, van der Klink, Blonk, Schene, and Van Dijk (2001) examined the effectiveness of stress management interventions in improving employee well-being outcomes across 48 studies and found that there was a significant small overall effect. However, only 17 studies had significant positive effects, whereas 31 studies had non-significant or negative effects. Similarly, Giga et al. (2003) reviewed 16 stress management studies and concluded that although organizational and individual/organizational interventions are able to lead to improvements in employee well-being, individual-level interventions were less effective and often have shorter-term results. Caulfield, Change, Dollard, and Elshaung (2004) reviewed several occupational stress intervention studies in Australia and concluded "overall, individually focused interventions do not seem to perform particularly well at lowering work stress" (p. 155). Furthermore, some types of interventions may have variable outcomes. For example, Kluger and DeNisi (1996) argued that although feedback interventions can be effective in increasing performance, feedback interventions actually reduced performance in over a third of the cases examined. Thus, it is possible that other factors might be contributing to variability in employee health intervention success.

Factors Influencing Intervention Success

In addition to the impact of formal programs to increase recovery experiences while improving employee well-being, other factors may effect one's success in such programs, and consequently, effect recovery, stress, and strain. In an effort to better evaluate training effectiveness, researchers have called for research examining why

training works (Mathieu, Tannenabaum, & Salas, 1992). Noe and Schmitt (1986) argued that identifying individual factors that might influence training effectiveness is important in order to understand what increases the possibility of behaviour change. Mathieu and Martineau's (1997) model of training motivation suggests that individual factors (e.g., locus of control, job involvement) and situational factors, such as work-related factors (e.g., organizational climate) act as predictors of both training motivation and outcomes by influencing expectancy theory variables. This notion was further supported in a meta-analytic summary of the literature on training motivation and outcomes (Colquitt et al., 2000) and continues to be examined and supported in organizational training interventions (e.g., Chiaburu & Tekleab, 2005; Velada, Caetano, Michel, Lyons, & Kavanagh, 2007).

Therefore, based on training motivation research, and in an effort to expand previous research surrounding the effectiveness of an employee health intervention in increasing recovery experiences and reducing stress and strain, several individual and work-related factors that might influence intervention success should be examined. That is, the extent to which people benefit from the intervention program and engage in recovery experiences and reduce their perceived stress and strain may be influenced by individual factors, such as the extent to which employees are engaged in the intervention program and their tendency to procrastinate. Moreover, work-related factors, such as the extent of perceived organizational support and job control may influence the effectiveness of the intervention program, and ultimately their recovery experiences and reported stress and strain.

Individual factors. When looking at interventions targeting behaviour change, it is likely that individual engagement in the program may influence behaviour and subsequently intervention outcomes. Several studies have demonstrated the link between intervention engagement and positive outcomes, in terms of programs improving physical activity (Richert, Lippke, & Ziegelmann, 2011), healthy eating (Couper et al., 2010), and reducing smoking with the use of smoking cessation interventions (Strecher et al., 2008). Additionally, a 95-study meta-analysis on worker safety and health training methods indicated that the more participants had to actively engage in the training (e.g., hands on training vs. lecture or programmed instruction), the greater their knowledge acquisition and reduction in negative outcomes (Burke et al., 2006). Similarly, a 51-study meta-analysis examining the effect of positive psychology interventions on well-being and depressive symptoms suggested that participants who were more motivated benefitted more from the interventions (Sin & Lyubomirsky, 2009). Therefore, similar effects could be expected in the case of an employee health intervention aimed at increasing recovery experiences and improving stress reduction. That is, because the intent of such a program is to provide education and resources to increase recovery experiences and reduce stress and strain, the greater the levels of engagement, the more likely it is that people will engage in recovery experiences and reduce their level of perceived stress and strain. If employees are not engaged in, or committed to the program, or if they choose not to participate, then little behaviour change would be expected.

Another factor that may influence participation and behaviour change (and thus, well-being outcomes) is procrastination. Procrastination, which is defined by Steel (2007)

as irrationally putting off tasks despite a possible negative consequence, is associated with stress and poor mental health (Sirois, Melia-Gordon, & Pychyl, 2003; Stead, Shanahan, & Neufled, 2010). Individuals who are high in procrastination are less likely to seek mental health help and more likely to delay treatment (Sirois et al., 2003; Stead et al., 2010). Therefore, even if they commit to a program, they may be less likely to be behaviourally engaged in the program and less likely to experience improvements in recovery experiences. That is, although procrastinators are aware of the positive benefits associated with the program and engaging in recovery experiences, they may put off engaging in such behaviours.

Work-related factors. Work factors, such as perceived organizational support and job control, may influence the degree to which individuals participate in the intervention program. Perceived organizational support is defined as the global beliefs that employees develop about the extent to which their organization values their work and is concerned for their well-being (Hutchison, Sowa, Eisenberger, & Huntington, 1986). Research has indicated that perceived organizational support can act as a buffer against work-related stress and strain (Thomas & Ganster, 1995). Furthermore, a meta-analysis of 73 studies by Rhoades and Eisenberger (2002) found that perceived organizational support was negatively correlated with strain and positively correlated with affective commitment to the organization and less withdrawal behaviours. Since, an individual's level of organizational commitment is associated with an individual's perception that training is useful to themselves and the organization and consequently, motivation to learn (Colquitt et al., 2000), it is expected that having a supportive work

environment may aid in increasing one's commitment to an intervention and may aid in reducing stress and strain and increasing recovery experiences as a result of the intervention program.

Job resources (i.e., control at work, social support, and justice of the supervisor) have the ability to positively influence recovery experiences after work (Kinnunen & Feldt, 2013). Specifically, Kinnunen and Feldt's (2013) longitudinal study indicated that job resources at Time 1 predicted high mastery recovery experiences at Time 2. Additionally, high job control may positively influence recovery experiences, in that employees with high job control have more discretion over how and when they perform their tasks (Jackson, Wall, Martin, & Davids, 1993), leaving them less susceptible to stress and strain (Fletcher & Jones, 1993). Furthermore, research has indicated that job control is negatively correlated with strain (Elovainio, Kivimäki, & Helkama, 2001). Therefore, individuals with high job control may be more successful in engaging in recovery experiences because of the program than individuals who have less control.

Summary and Hypotheses

There has been consistent evidence supporting the positive impact of recovery experiences on reducing job stress and strain (e.g., Sonnentag & Fritz, 2000; Sonnentag & Frese, 2003). There also has been promising evidence as to the extent to which a job stress and an employee health intervention program (i.e., the Achieving Balance in Life and Employment Program; ABLE) is useful in increasing several types of recovery experiences and reducing stress and strain in employees (MacDonald, 2012; Stevens, 2010). Because individual and work-related factors may help us better understand how

training programs can influence behaviour change (Colquitt et al., 2000; Noe & Schmitt, 1986; Mathieu & Martineau, 1997), I will examine whether individual factors (i.e., engagement in the program and procrastination) and work-related factors (i.e., perceived organizational support and job control) that were collected in two separate archival samples effect employees' success in an employee health intervention over time (i.e., pre-intervention, post-intervention, and follow-up). Moreover, because one's organization might influence one's success in the program and reported recovery, stress, and strain, I will examine these relationships while controlling for one's work organization by using hierarchical linear modeling analysis and nesting time within individuals, within organization, so I can control for the intercorrelations among individuals working in the same organization.

I am extending past research in several important ways: I am examining the trend of recovery, stress, and strain, and specifically examining the trend of recovery over a longer period of time (i.e., 6 months) than was examined in previous studies (e.g., Hahn et al., 2011; MacDonald, 2012; Stevens, 2010); I am using a follow-up time point after pre-intervention and post-intervention in all ABLE 1 and ABLE 2 participants; and I am examining more recovery types (i.e., 8 subscales instead of just the four REQ subscales; Hahn et al., 2011). Therefore, I hypothesize, when using archival data from two ABLE samples:

> ***Hypothesis 1a:*** When controlling for one's work organization (i.e., nesting individuals within organizations), participants' trend of recovery experiences across time (i.e., pre-intervention, post-intervention, and follow-up) will depict a

positive linear relationship, in which recovery experiences will increase across the pre-intervention to post-intervention time points and continue to increase from the post-intervention to follow-up time point (see Figure 1).

Hypothesis 1b: When controlling for organization (i.e., nesting individuals within organizations), participants' trend of stress and strain across time (i.e., pre-intervention, post-intervention, and follow-up) will depict a negative linear relationship, in which stress and strain will decrease across the pre-intervention to post-intervention time points and then continue to decrease from the post-intervention to the follow-up time point (see Figure 2).

I hypothesize a linear relationship because the ABLE program is an individualized phone-based coaching program in which participants set goals and worked through educational material and resources for 10-12 weeks. Given the goals that the participants set and work towards, and the applied, hands-on nature of the program, I expect that knowledge acquisition will be high, which would encourage and increase the likelihood that participants would continue to apply the material that they learned throughout the program and after the program was over. Participants also had a booster (follow-up) session six weeks post-intervention, in which coaches checked in on participants' goals and discussed the participants' well-being. This contact with coaches should remind participants of the material they learned throughout the program and give participants the opportunity to discuss any issues they are having with implementing the material they learned, and allow coaches to provide further suggestions if needed. Therefore, I would

expect that the magnitude of relationship will remain the same across all time points, such that there will be a linear relationship.

Several researchers (e.g., Colquitt et al., 2000) advised that in order to better understand how a training program can influence behaviour change (e.g., recovery), individual and work-related factors should be examined. Because engagement in an intervention program can influence behaviour change (e.g., Richert et al., 2011), participants who are more engaged in the program are expected to have greater increases in recovery experiences in comparison to individuals who are less engaged in the program. Conversely, because individuals who are high on procrastination tend to delay their health-related behaviour (Sirois et al., 2003), they also may be more likely to delay implementing what they learned in the intervention program and delay recovery experiences. Therefore, I hypothesize that:

Hypothesis 2a: After controlling for one's organization (i.e., nesting individuals within organizations), participants' levels of engagement in the program will influence one's recovery experiences across time (i.e., pre-intervention, post-intervention, and follow-up), such that participants who are high on engagement in the program will show a greater increase in recovery experiences across pre-intervention, post-intervention, and follow-up in comparison to individuals' low on engagement in the program

Hypothesis 2b: After controlling for one's organization (i.e., nesting individuals within organizations), participants' levels of procrastination will influence one's recovery experiences across time (i.e., pre-intervention, post-intervention, and

follow-up), such that participants who are low on procrastination will show a greater increase in recovery experiences across pre-intervention, post-intervention, and follow-up in comparison to individuals' high on procrastination.

Furthermore, because the intent of the program is to provide education and resources to reduce stress and strain, because procrastination is correlated with stress (Stead et al., 2010), and because higher engagement in interventions is associated with greater well-being improvements (Sin & Lyubomirsky, 2009), higher engagement in the program and being lower on procrastination may be associated with greater decreases in stress and strain as a result of the program, I hypothesize that:

Hypothesis 3a: After controlling for one's organization (i.e., nesting individuals within organizations), participants' levels of engagement in the program will influence one's stress and strain across time (i.e., pre-intervention, post-intervention, and follow-up), such that participants who are high on engagement in the program will show a greater decrease in stress and strain across pre-intervention, post-intervention, and follow-up in comparison to individuals' low on engagement in the program.

Hypothesis 3b: After controlling for one's organization (i.e., nesting individuals within organizations), participants' levels of procrastination will influence one's stress and strain across time (i.e., pre-intervention, post-intervention, and follow-up), such that participants who are low on procrastination will show a greater decrease in stress and strain across pre-intervention, post-intervention, and follow-up in comparison to individuals' high on procrastination.

In addition to these individual factors, work-related factors also may influence one's recovery experiences, stress, and strain across time as a result of the program. Employees who believe that their organization is supportive of their well-being and/or provide resources to help them engage in recovery experiences may find it easier to engage in recovery experiences outside of work because they genuinely believe that their organization is supportive of such activities. Additionally, having high job control may provide individuals with more flexibility and subsequently influence their success in the program and ability to engage in recovery experiences. Therefore, I hypothesize that:

Hypothesis 4a: After controlling for organization (i.e., nesting individuals within organizations), participants' perceived organizational support will influence one's recovery experiences across time (i.e., pre-intervention, post-intervention, and follow-up), such that participants who are high on perceived organizational support will report a greater increase in recovery experiences across pre-intervention, post-intervention, and follow-up in comparison to participants who are low on perceived organizational support.

Hypothesis 4b: After controlling for organization (i.e., nesting individuals within organizations), participants' job control will influence one's recovery experiences across time (i.e., pre-intervention, post-intervention, and follow-up), such that participants who are high on job control will report a greater increase in recovery experiences across pre-intervention, post-intervention, and follow-up in comparison to participants who are low on job control.

Furthermore, because lower stress and strain has been reported and/or negatively correlated with perceived organizational support (Rhoades & Eisenberger, 2002) and having job control (Fletcher & Jones, 1993), I hypothesize that:

Hypothesis 5a: After controlling for organization, (i.e., nesting individuals within organizations) participants' perceived organizational support will influence one's stress and strain across time (i.e., pre-intervention, post-intervention, and follow-up), such that participants who are high on perceived organizational support will report a greater decrease in stress and strain across pre-intervention, post-intervention, and follow-up in comparison to participants who are low on perceived organizational support.

Hypothesis 5b: After controlling for organization, (i.e., nesting individuals within organizations) participants' job control will influence one's stress and strain across time (i.e., pre-intervention, post-intervention, and follow-up), such that participants who are high on job control will report a greater decrease in stress and strain across pre-intervention, post-intervention, and follow-up in comparison to participants who are low on job control.

Method

Intervention – Achieving Balance in Life and Employment (ABLE)

Achieving Balance in Life and Employment (ABLE) is a 10-12 week, one-on-one individualized phone-based coaching program in which participants received weekly coaching sessions that concentrated on improving stress reduction, physical, and mental

health, and work-life balance by encouraging recovery activities. Within these sessions, participants identified stressors and demands that they had been facing at work and at home and set goals they would work towards throughout the program. Coaches helped the participants work through individually tailored topics and helped participants achieve their goals. Participants also received a manual, which included educational material on topics such as time management, coping strategies, work-life balance, and workplace demands.

Procedure

Participants from two archival samples participated in either a 12-week (Sample 1 collected in 2009; Day, Francis, Stevens, Hurrell, McGrath, & Morgan, 2011) or 10-week (Sample 2 collected in 2012; Day, Francis, MacDonald, & Hartling, 2013) ABLE intervention program. Participants were recruited for the ABLE program through contacts at numerous Nova Scotia organizations. The organizational contacts at the Nova Scotia organizations distributed a standard recruitment email for the ABLE intervention program to all of their employees. Participants were advised that participation was voluntary and anonymous. In both samples, interested participants completed a screening survey prior to participating in the study. Any employees who scored in the extremely severe range on the Depression Anxiety Stress Scale (DASS; Lovibond & Lovibond, 1995) were screened out and were contacted by a clinical psychologist for further consultation.

The remaining employees were invited to participate in the intervention study. Employees participated over a 12-month period. During this time, in addition to the

screening survey, participants received the ABLE coaching program, and completed four online surveys at 0 months, 3 months, 6 months, and 12 months. Prior to each group beginning the intervention, participants were given a manual that contained information that would be covered in the subsequent weeks. Six weeks post-intervention, a booster session phone call (follow-up) was used in which coaches checked in on the participants goals set by both parties and discussed the participants, well-being, work-life balance, and other work issues.

A waitlist control design was used, in which one group participated in the phone-based coaching between the first and second data collection periods. The second group participated in the coaching between the second and third data collection periods. Because the focus of my study is to examine individual and work-related factors that may influence training effectiveness in the ABLE program over time, in order to analyze the data for this study, the data for each group were collapsed across groups, such that the variables were labeled "pre-intervention" (i.e., Time 1 data for group 1 and Time 2 data for group 2), "post-intervention" (i.e., Time 2 data for group 1 and Time 3 data for group 2), and "follow-up" (i.e., Time 3 data for group 1 and Time 4 data for group 2). Additionally, because the ABLE coaching program differed in terms of the duration of phone-based coaching (i.e., 12 and 10 weeks) and measures assessed for the two samples (i.e., 2009 and 2012), they were analyzed separately for this study.

Participants

Sample 1. Sample 1 consisted of 119 employees (102 women and 17 men) from 15 Nova Scotia organizations (e.g., health-care, education, government). The average age

of Sample 1 was 43.80 years (*SD* = 9.85 years), with an age range from 20 to 64 years of age. All participants were employed during this study and worked an average of 41.92 hours per week. Sixty-three percent were married and 73.9% had children. **Sample 2.** Sample 2 consisted of 130 employees (114 women, 15 men, and 1 undisclosed) from 10 Nova Scotia organizations. The average age of the second sample was 43.32 years (*SD* = 9.24 years), with an age range from 23 to 62 years of age. All participants were employed during this study and worked an average of 39.95 hours per week. Sixty percent were married and 63% had children.

Although 190 participants in Sample 1 and 161 participants in Sample 2 completed the registration for the program, 64 participants in Sample 1 and 6 participants in Sample 2 either did not start the intervention or withdrew before week 5 of the intervention (a total of 70 participants in Sample 1 and 7 participants in Sample 2 did not complete the entire intervention). A total of 119 and 130 participants completed the phone-based coaching intervention as well as the pre-intervention survey, and 69% of participants in Sample 1 and 85% of participants in Sample 2 completed all the surveys in this study.

Measures

Participants completed the following measures through an online website (Limesurvey) over the pre-intervention, post-intervention, and follow-up measurement occasions (see Appendix A)[1]. All outcome measures were measured at all three time points and the individual and work-related variables were measured at pre-intervention.

[1] Participants completed other measures that are not reported here.

Demographics Questionnaire. Participants provided information on their age, gender, education, employer, occupation, and marital status.

Strain. Participants completed the 20-item Strain Symptoms Checklist (Bartone, Ursano, Wright, & Ingraham, 1989) in order to measure psychological and physiological symptoms and health complaints. Participants rated the extent to which they agreed with each item (e.g., "Difficulty concentrating" and "Nervousness or tenseness") using a 6-point frequency scale from 0 (*never*) to 5 (*always*). Cronbach's alphas ranged from α = .86 to .89 in Sample 1. Similarly, Cronbach's alphas ranged from α = .86 to .90 across the 3 times in Sample 2.

Stress. Participants completed the Depression Anxiety Stress Scales (DASS; Lovibond & Lovibond, 1995). The seven-item stress subscale was used to measure areas such as nervousness, tension, and difficulty relaxing. Participants rated the extent to which each item applied to them over the past week (e.g., "I found it difficult to relax"), using a 4-point scale from 0 (*did not apply to me at all*) to 3 (*applied to me very much, or most of the time*). Cronbach's alpha was α = .78 and .87 for the two time points (was not measured at follow-up in Sample 1) in Sample 1, and ranged from α = .77 to .83 across the three times in Sample 2.

Recovery. Participants completed the Recovery Experience Questionnaire – Expanded REQ; Stevens, 2010). The REQ included the original 16 items from Sonnentag and Fritz's (2007) REQ as well Stevens (2010) additional 25 items. Participants rated the extent to which they had engaged in the recovery activity over the past month on a 5-point Likert-type scale from 1 (*I do not agree at all*) to 5 (*I fully agree*). Examples items

are "I kicked back and relaxed" and "I socialized with others". Therefore, the scale consisted of 41 items and 10 subscales that included psychological detachment, relaxation, mastery, control, planning, social affiliation, physical activities, hope/optimism, fun/humour, and self-reward.

All subscales demonstrated high internal reliability at all three time[2] points in Sample 1 and Sample 2: (1) Cronbach's alphas for Psychological Detachment ranged from $\alpha = .75$ to .92 for Sample 1 and $\alpha = .83$ to .89 for Sample 2; (2) Relaxation ranged from $\alpha = .88$ to .96 for Sample 1 and $\alpha = .92$ to .94 for Sample 2; (3) Mastery ranged from $\alpha = .75$ to .92 for Sample 1 and $\alpha = .90$ to .92 for Sample 2; (4) Control ranged from $\alpha = .76$ to .90 for Sample 1 and $\alpha = .86$ to .88 for Sample 2; (5) Social Affiliation ranged from $\alpha = .78$ to .90 for Sample 1 and $\alpha = .87$ across times for Sample 2; (6) Physical Activity ranged from $\alpha = .86$ to .96 across all three time points for Sample 1 and $\alpha = .92$ to .93 for Sample 2; (7) Fun/Humour ranged from $\alpha = .91$ to .93 for Sample 1 and $\alpha = .88$ to .93 for Sample 2 and; (8) Self-Reward ranged $\alpha = .87$ to .88 for Sample 2.

Procrastination. The Sample 2 participants completed a condensed[3] five-item Pure Procrastination Scale (PPS; Steel, 2010), rating the extent to which they agreed with each statement (e.g., "I tend to put off making decisions" and "I waste time by doing non-work tasks") using a 5-point Likert-type scale from 1 (*strongly disagree*) to 5 (*strongly agree*). For Sample 2 Cronbach's alpha ranged from $\alpha = .91$ to .93 across the three time points. Procrastination was not assessed in Sample 1.

[2] Planning and hope/optimism were not assessed at "Follow-up" in either sample and self-reward was not assessed at "Follow-up" in Sample 1, and therefore, they were not examined in the current study.
[3] These scales were condensed for the purpose of the present study in an effort to improve readability of the items and decrease the length of the survey.

Job Control. Participants completed a condensed[3] seven-item version of Dwyer and Ganster's (1991) Job Control Scale in order to measure job control in different aspects of their job (e.g., "How much control do you have over the amount of resources (tools, material) you get?") using a 5-point scale from 1 (*very little*) to 5 (*very much*). Cronbach's alpha was α = .79 in Sample 1, and α =.84 in Sample 2.

Perceived Organizational Support. Participants completed a shortened[3] five-item version of a Survey of Perceived Organizational Support (Hutchison et al., 1986) to measure the extent to which they thought their organization offered support. Participants rated the extent to which they agreed with each item (e.g., "My organization cares about my well-being") using a 5-point Likert-type scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alpha was α = .88 in Sample 1, and α =.85 in Sample 2.

Engagement in ABLE. Engagement in program was measured using coach's ratings of participants. At the end of the 10-12 week intervention, ABLE coaches rated each participants' engagement in the program on six aspects of engagement (e.g., "The participant was motivated to achieve goals") using a 5-point Likert-type scale from 1 (*strongly disagree*) to 5 (*strongly agree*). A composite score was used for the six aspects of engagement. Cronbach's alpha was α = .89 in Sample 1, and α =.94, in Sample 2.

Results

Data Screening and Cleaning

Prior to analyses, data were screened for accuracy of data entry, outliers, and violations of assumptions. The variables were examined separately for each sample. An

examination of multivariate outliers in Sample 1 using a p <.001 criterion for Mahalanobis distance (or x^2 > 55.48) indicated there were no multivariate outliers. Similarly, in Sample 2, using a p <.001 criterion for Mahalanobis distance (or x^2 > 65.23), there were no multivariate outliers. Normality and homoscedasticity were examined using histograms. In Sample 1, a few study variables were slightly skewed (i.e., strain post, control post, strain follow-up) and above the recommended 3.29 cut-off. However, in large samples, it is expected that some variables will have skewness and kurtosis (Tabachnik and Fidel, 2013). Similarly, in Sample 2 some of the study variables also were slightly skewed (i.e., relaxation post, social affilication post, physical activity post, fun/humour post, strain follow-up, stress follow-up, relaxation follow-up, control follow-up, fun/humour follow-up, and engagement in the program).

Descriptive statistics (means, standard deviations, and Cronbach's alpha coefficients) and intercorrelations were calculated for all measures and both samples across the three measurement occasions (pre-intervention, post-intervention, and follow-up; see Tables 1 through 3).

Assessing Group Equivalency

Prior to merging the two groups within each sample, I conducted a test of equivalence of covariance matrices on all dependent variable across the two samples using MPlus 7.1. I first ran an unconstrained model estimating the means, variances, and intercorrelations freely within each group. Next, each of the parameters in the model was constrained to equality across groups. Because the models (constrained and unconstrained) were nested, I used a chi-square difference test to test that the parameters

were not significantly different across groups. Results indicated that six of the eight dependent variables model parameters were not significantly different across groups in Sample 1, and seven of the 10 were not significantly different in Sample 2 (see Table 4). Because some variables were significantly different across groups, I performed further analyses in which I only estimated the means and intercorrelations to identify which parameters differed across groups. All of the variables, except strain in Sample 1, did not significantly differ across means or intercorrelations (see Table 4). Accordingly, I combined the two groups. However, due to the significant difference on means and intercorrelations on the strain variable, I controlled for group in any analyses that contained strain in the Sample 1 data.

Hierarchical Linear Modeling

In order to test the hypotheses for each sample, I conducted a three-level hierarchical linear model (time within employee within organization) using HLM 6.0 (Raudenbush, Bryk, Cheong, Congdon, & du Toit, 2004). I prepared three data files for HLM in IBM SPSS Statistics 20 for Windows. The first dataset contained all the level-1 variables (measurements at each time point) for the three measurement occasions (e.g., strain). The second dataset contained all the level-2 variables (person-level variables) that did not change over time (e.g., perceived organizational support) and the third dataset contained only the level-3 variable (i.e., organization-level), which identified which organization each individual belonged to. The first two datasets also contained the organization-level variable. Including the organization in which each participant works, allowed me to control for a higher-level context (i.e., organization) influencing individual

behaviour (Bliese & Jex, 2002). Nesting the data by organization is important because two participants from the same organization will often be more alike than two random participants and may demonstrate some degree of correlation on outcome variables (Austin, Goel, & Walraven, 2001). Consequently, failing to structure the data hierarchically could result in underestimated standard errors and an increase in Type 1 error (falsely rejecting the null hypothesis when it is in fact true). Next, the three SPSS files were opened in HLM to create a new combined multivariate data matrix for each sample. Due to the longitudinal nature of the data, the chances of missing data increase. However, HLM is not overly sensitive to missing data, in that it uses all available data and does not delete individuals with missing data (Burchinal, Nelson, & Poe, 2006).

In order to test Hypothesis 1a (i.e., participants' trend of recovery will depict a positive linear relationship and 1b (i.e., participants' trend of stress and strain will depict a negative linear relationship), I estimated a linear growth curve with random intercepts with HLM, in which I used time (pre-intervention, post-intervention, follow-up) of measurement as the predictor. As shown in Table 5, seven of the eight dependent variables in Sample 1 had a significant linear slope: strain, -0.03 $t(137) = -.82$, $p = 0.415$; psychological detachment, 0.22, $t(133) = 3.61$, $p < .001$; relaxation, 0.30, $t(132) = 5.22$, $p < .001$; mastery, 0.25, $p < .001$; control, 0.14, $t(132) = 2.32$, $p = 0.022$; social affiliation, 0.22, $t(132) = 3.99$, $p < .001$; physical activity, 0.28, $t(134) = 4.15$, $p < .001$; and fun/humour, 0.19, $t(132) = 3.46$, $p < .001$. Therefore, the mean constant rate of change indicates that participants' levels of recovery significantly improved between .14 and .30 points on recovery subscales on average per measurement point (i.e., pre-intervention,

post-intervention, follow-up). Strain did not significantly linearly improve (i.e., decrease over time) in Sample 1. In Sample 2, eight of the 10 dependent variables demonstrated a significant linear slope (see Table 5): strain, 0.15, $t(180) = -5.50$, $p < .001$; stress, -.20, $t(180) = -6.47$, $p < .001$; psychological detachment, 0.17, $t(179) = 3.34$, $p = 0.001$; relaxation, 0.16, $t(179) = 3.02$, $p = .003$; mastery, 0.12, $t(178) = 2.30$ $p = 0.023$; control, 0.08, $t(179) = 1.60$, $p = 0.112$; social affiliation, 0.16, $t(179) = 3.61$, $p < .001$; physical activity, 0.21, $t(178) = 3.91$, $p < .001$; fun/humour, 0.09, $t(178) = 1.82$, $p = 0.070$; and self-reward, 0.14, $t(178) = 2.61$, $p = 0.010$. Therefore, the mean constant rate of change for stress and strain in Sample 2 indicates that participants' level of stress and strain decreases -.15 and -.20 points respectively on average per measurement point (i.e., pre-intervention, post-intervention, follow-up). Similar to Sample 1, the mean constant rate of change for recovery in Sample 2 increased from .14 to .21 points on recovery subscales on average per measurement point (i.e., pre-intervention, post-intervention, follow-up). Control and fun/humour were the only variables that did not have a significant linear slope. Because there were only three measurement occasions, a quadratic growth curve could not be estimated because it requires at least four measurement occasions (Mroczek & Griffin, 2007).

In order to examine Hypotheses 2 to 5 (i.e., individual and work-related factors will influence one's stress, strain, and recovery across pre-intervention, post-intervention, and follow-up), I first assessed variability in slopes by estimating a linear growth curve analysis with time as the predictor for the dependent variable and random intercepts and slopes. In Sample 1, the recovery subscales of psychological detachment, x^2 (83) =

106.00, p = 0.045, control, x^2 (83) = 134.92, p <.001, physical activity, x^2 (85) = 114.93, p = .017, and fun/humour, x^2 (83) = 128.00, p = .001, had significant slope variability across people (see Table 6). Relaxation, x^2 (83) = 95.60, p = .163, mastery, x^2 (83) = 98.65, p = .116, and social affiliation, x^2 (83) = 99.77, p = .101, did not have significant variability in slopes. In Sample 2, the recovery subscales of relaxation, x^2 (95) = 126.36, p =.017, and mastery x^2 (95) = 128.08, p = .013, had significant slope variability across people (see Table 6). However, strain, x^2 (95) = 107.34, p = .182, stress, x^2 (95) = 100.31, p = .335, psychological detachment, x^2 (95) = 88.05, p >.500, social affiliation, x^2 (95) = 112.94, p = .101, physical activity, x^2 (95) = 114.03, p = .089, and self-reward, x^2 (95) = 106.43, p = .199, did not.

Because only psychological detachment, control, physical activity, and fun/humour in Sample 1 and relaxation and mastery in Sample 2 had significant variability in slopes, I examined whether individual and work-related factors influenced these outcome variables. Thus, I conducted a cross-level growth model in which I entered each individual (i.e., engagement in the program and procrastination) and work-related variable (perceived organizational support and job control) at level 2, separately as moderators of the linear time effect. Each of the individual and work-related variables was tested separately so they were not competing for variance among the other predictors. No predictors were entered at level 3, because this level is only being used to account for the nested nature of the data (i.e., to control for which individuals work within the specific organizations).

When looking at the cross-level analyses, in Sample 1, time by psychological detachment was not moderated by any of the individual (i.e., engagement in the program, 0.05, $t(74) = 0.84$, $p = .403$) or work-related factors (i.e., perceived organizational support; 0.01, $t(74) = 0.25$ $p = .800$, job control, -0.02, $t(74) = -0.36$, $p = .720$). On the other hand, the time by control, was moderated by work-related factors: perceived organizational support, 0.09, $t(74) = 2.25$, $p = .027$ and job control, 0.15, $t(74) = 2.97$, $p = .004$, but not by engagement in the program, 0.08, $t(74) = 1.58$, $p = .118$. Time by physical activity was moderated by perceived organizational support, 0.09, $t(74) = 2.01$, $p = .030$, but not by engagement in the program, 0.04, $t(74) = 0.60$, $p = .548$, or job control, 0.11, $t(74) = 1.89$, $p = .063$. Moreover, time by fun/humour was moderated by perceived organizational support, 0.10, $t(74) = 2.82$, $p = .006$ and job control, .11, $t(74) = 2.75$, $p = .008$, but not by engagement in the program, 0.05, $t(74) = 1.05$, $p = .298$ (see Table 7).

In Sample 2, time by relaxation was moderated by engagement in the program, 0.17, $t(83) = 4.89$, $p < .001$; procrastination, -0.08, $t(83) = -2.68$, $p = .009$; and perceived organizational support, -0.06, $t(83) = -1.99$. $p = .050$, but not by job control, -0.02, $t(83) = -0.89$, $p = .378$. Time by mastery was not moderated by any of the individual (i.e., engagement in the program, 0.08, $t(83) = 1.59$, $p = .116$; procrastination, -0.08, $t(83) = -4.08$, $p = .064$) or work-related (i.e., perceived organizational support, -0.03, $t(83) = -0.81$, $p = .423$; job control, -0.03, $t(83) = -0.74$, $p = .459$) variables (see Table 7).

Next, in order to parse out the individual and work-related variables that moderated the time effect, I used Aiken and West's (1991) guidelines for moderation. Thus, I centered the moderators and time by subtracting their means, then computed

interaction terms for each significant individual and work-related variable on control, physical activity, and fun/humour in Sample 1 and relaxation in Sample 2. For each significant interaction, I assessed individuals who were high (1 standard deviation above the mean), average (mean), and low (1 standard deviation below the mean) on each of the individual and work-related factor variables. All of the significant interactions were tested in separate regression equations by including the centered moderator and centered time variable, and the centered interaction term. Results are presented in Figures 4 to 8 for Sample 1 and Figures 9 to 11 for Sample 2.

Discussion

The goal of this study was to examine individual and work-related factors that may influence the effectiveness of a job stress and employee health intervention program, specifically by examining individuals' recovery experiences, stress, and strain across three measurement occasions (pre-intervention, post-intervention, and follow-up). Results of this study provide preliminary evidence that some individual and work-related variables can influence the effectiveness of an employee health intervention that aims to increase recovery experiences and reduce stress and strain.

Stress, Strain, and Recovery Over Time

In order to assess Hypotheses 1a (i.e., participants' trend of recovery experiences across time will depict a positive linear relationship) and 1b (i.e., participants' trend of stress and strain across time will depict a negative linear relationship), I conducted a hierarchical growth curve model estimating participants' linear trend of recovery, stress,

and strain over time. Hypothesis 1a, a positive linear trend of recovery across the three time points was supported for all recovery subscales in Sample 1 and for all recovery subscales in Sample 2, with the exception of control and fun/humour.

Hypothesis 1b (i.e., a negative linear trend of strain across the three time points) was not supported in Sample 1 for strain (stress was not assessed); however, it was supported in Sample 2 for both stress and strain. An examination of reported strain means across the three measurement occasions in each sample indicated that although self-reported strain decreased over time in both samples, the decrease was much more pronounced in Sample 2. Therefore, it is possible that the program was not as effective for Sample 1 as Sample 2 in reducing employee's strain. Additionally, even though the participants participated in a similar intervention it is possible that other extraneous variables (e.g., life events, time of year) influenced their level of strain (i.e., health complaints) throughout the program and resulted in a non-significant reduction in strain throughout the program. Furthermore, the fun/humour and control recovery subscales were not significant in Sample 2, although it should be noted that the fun/humour subscale was in the expected direction but just not significant. Previous research has suggested that control can be increased as a result of a recovery training program (Hahn et al., 2011). In the present study, however, results on increasing control were not consistent across the two samples. Taken together these somewhat similar results across strain, stress, and recovery variables, between the two samples provide support for the success of the employee health intervention across samples.

Individual and Work-related Factors Influencing Recovery, Stress, and Strain

In order to assess Hypotheses 2 to 5 (i.e., that individual and work-related factors will influence stress, strain, and recovery across time), I first assessed variability in slopes. Results indicated that in Sample 1, only the recovery subscales psychological detachment, control, physical activity, and fun/humour had significant variability in slopes. In Sample 2, only the recovery subscales mastery and control had significant variability in slopes. Therefore, because there was no variability in slopes for strain, stress, relaxation, mastery, and social affiliation in Sample 1 and no variability in strain, stress, psychological detachment, social affiliation, physical activity, fun/humour, and self-reward in Sample 2, I did not model these relationships further because a fixed slope fit most participants data best, and thus, an analyses of the potential moderators would likely be non-significant.

After assessing the variability in slopes, I conducted a cross-level growth model in which I entered individual and work-related variables as moderators of the linear time effect in dependent variables that had variability in slopes. Results of this analyses revealed that in Sample 1, perceived organizational support and job control moderated the linear time effect in the control and fun/humour recovery dimensions however, not in the psychological detachment dimension. Although the fun/humour subscale was moderated by job control, participants that had lower job control actually reported the greatest increase in fun/humour recovery experiences in comparison to participants with more job control. Thus, it is possible that participants with little job control realized that just because they did not have control over their activities at work, that did not mean they did not have control over activities during non-work time, and therefore, they made more

of an effort to do so. Alternatively, an examination of the Figure 8 suggests that regression towards the mean might be occurring because participants with low job control started out with lower scores than individuals with high job control. Physical activity was only moderated by perceived organizational support. However, even though participants with higher perceived organizational support reported more physical activity recovery experiences, participants who had lower perceived organizational support reported the greatest increases in physical activity recovery throughout the program, which was contrary to what was predicted. Thus, it is possible that participants with lower perceived organizational support benefitted more from the program encouraging physical activity recovery experiences than those with higher perceived organizational support because they were able to realize that just because their organization did not support and value their well-being, did not mean that they could not support their own well-being and take steps outside of work to promote their own well-being. Engagement in the program did not moderate the time effect in any of the Sample 1 recovery subscales. With respect to psychological detachment, previous research has indicated that variables such as workload, job involvement, recovery-related self-efficacy, and strain (Sonnentag, Bayer, 2005; Sonnentag & Kruel, 2006) were related to psychological detachment. In this study, although participants' slopes on psychological detachment varied, the moderators tested in this study were not able to contribute to past research and further explain psychological detachment variability. The finding that participants of the employee health interventions level of engagement did not moderate their success in the program in Sample 1 is not in line with my assumption that participants who were more engaged would experience

more positive outcomes. Given that coaches are the ones that rated participants' engagement in the phone-based coaching and not a combination of participants and coaches, it is possible that coach's ratings might not have accurately depicted the level of participant program engagement.

Some of the moderator results from Sample 1 differed for Sample 2. In Sample 2, engagement, procrastination, and perceived organizational support all moderated the linear time effect for relaxation, but they did not moderate the time effect for mastery. Although perceived organizational support moderated the linear time effect for relaxation, participants with lower perceived organizational support actually experienced the greatest increases in relaxation recovery experiences in comparison to individuals with higher perceived organizational support. However, it should be noted that all participants reported increases in relaxation recovery throughout the program. Similar to physical activity in Sample 1, individuals with lower perceived organizational support might have realized that just because their organization did not value their well-being does not mean they should not value their own well-being. Job control did not moderate the linear time effect for either dependent variable (contrary to Sample 1 in which job control moderated the linear time effect for control and the fun/humour recovery dimensions). Thus, although there was significant variability in the mastery recovery dimensions in Sample 2, the moderators examined in this study were not able to explain the variability.

Although employees within each sample experienced a similar intervention, differing findings within each sample might be attributable to tailoring the phone-based

coaching to participant goals and/or coaches focusing on different types of recovery, as well as differences in program timeline. Although results varied somewhat across samples, the results of this study contribute to the literature by demonstrating that individual (i.e., engagement in the program, procrastination) and work-related factors (i.e., perceived organizational support, job control) can influence workplace interventions.

Limitations and Future Research

This study is not without limitations. Although the archival samples used in this study did reach the minimum requirement of a sample approaching 100 for analyses estimating growth curves (Curran, Obeidat, Losardo, 2010), given the complexity of the analyses, a larger sample would have been desired in order to increase power. Within this study, there is the potential for common-method variance (CMV) because, although we relied on some coaching data, most of the measures were self-report (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, due to the nature of the questions (e.g., recovery experiences), this method was considered acceptable for measuring most constructs. Future research should examine supervisor ratings in addition to self-report for some variables such as job control.

Within this study, two separate samples that participated in the ABLE intervention in 2009 and 2012 were examined separately. Although most aspects of the ABLE program remained the same over the two samples, some aspects differed, such as only having 10 weeks of individualized phone-based coaching in the second sample, as

opposed to the 12 weeks that were used in the first sample, therefore providing support for examining the two samples separately.

The ABLE program involves a waitlist-control design, in which the two groups within each sample received the intervention (i.e., phone-based coaching) at two different time points throughout the 12-month program (i.e., one group participated in the phone-based coaching between the first and second data collection periods and the second group participated in the coaching between the second and third data collection periods). Therefore, for this study data were collapsed across the groups to represent variables examined at "pre-intervention", "post-intervention", and "follow-up". As a result of collapsing across the two groups, the "follow-up" data collection points were not consistent across the two groups within each sample. Specifically, in Sample 1, the "follow-up" data were collected 4 months after the "post-intervention" data in group 1, and 5 months after the "post-intervention" data in group 2. In the second sample, the "follow-up" data collection point occurred 3 months after the "post-intervention" data in group 1, and 6 months after the "post-intervention" data in group 2. However, a test of group equivalency indicated that the groups were equivalent on all dependent variables, except strain, in Sample 1. Future research examining multiple samples should ensure that the interventions and measurement occasions are as similar as possible in order to ensure the results are a result of the intervention and not a change in the intervention or measurement occasion. At the same time, researchers should be mindful that tailored interventions may be more effective and be better received than a generic intervention to

improve health outcomes, given the personal relevance and feedback that is incorporated (Brug, Campbell, van Assesma, 1999; Dijkstra, 2005).

Furthermore, attrition over the length of the study is a potential concern given that approximately 31% and 15% of participants that completed the phone-based coaching intervention in Sample 1 and Sample 2, respectively, failed to complete all the surveys (i.e., pre-intervention, post-intervention, follow-up). Because I do not have data on the participants who failed to complete the measures at post-intervention and follow-up, it is difficult to assess why they choose to drop out of the study. However, post-hoc analyses on the dependent variables examined in this study, and on procrastination in Sample 2 at pre-intervention indicated that participants that dropped out did not significantly differ from participants that stayed in the program on any of these variables. In order to reduce attrition in future studies using long-term interventions, researchers might want to implement a selection process in which they can screen participants for motivation to take part in the intervention, and potentially increase the chance of them completing the entire program (including surveys after the intervention).

Although I hypothesized a linear growth curve for each dependent variable, future research may examine non-linear effects (i.e., quadratic). These non-linear effects could not be assessed in the present study because I only had three time points (Mroczek & Griffin, 2007). It has been suggested that you can probe non-linear effects by including time and time squared with fixed slopes. However, this analysis would not run due to multicollinearity among the time and time squared predictors. Although the analyses would run with only time squared (quadratic) in the model and without time (linear),

running this analyses without the lower term in the model would likely overstate the significance of the quadratic slope, because it could be masking a linear slope. Therefore, future research should include more than three measurement points in order to test both linear and curvilinear trends of dependent variables.

Furthermore, although I controlled for the different organizations (because participants came from several Nova Scotia organizations), I did not control for the different coaches. There were four coaches per intervention (i.e., four coaches for Sample 1 and four different coaches for Sample 2). Although the coaches went through the same standardized training, it is possible that different coaches might have encouraged different types of recovery activities, and/or focused on different components of the program, which could potentially influence participant outcomes. Thus, future research on interventions, using multiple coaches, might consider controlling for coach.

In these archival datasets, data were collected on individual and work-related factors that might influence program success prior to the intervention. Due to the length of the study, it is possible that some of these variables could have fluctuated throughout the program. However, they were not assessed at additional time points in the current study. Procrastination was the only variable that was assessed at multiple time points. However, given that I was interested in one's overall procrastination level and whether it influenced their success in the program, a mean of the three time points was used in these analyses. Furthermore, we focused on recovery experiences, stress, and strain as outcome measures of employee success in an intervention program. Future research should examine alternate outcome measures and examine if similar individual and work-related

factors can influence participant success in other job stress and employee health interventions.

Finally, the generalizability of the findings is limited because both samples were predominantly women. Given that men are less likely than women to seek help for issues, such as stress (Addis & Mahalik, 2003), future research might consider recruiting men for employee well-being interventions by incorporating and promoting components that might appear more attractive to them (e.g., using terms such as professional development rather than work-life balance).

Practical Implications

Given that individual and work-related factors need to be examined to better understand how training programs can influence behaviour change (Colquitt et al., 2000; Noe & Schmitt, 1986; Mathieu & Martineau, 1997), this study sought to identify individual and work-related factors that can influence participant success in an employee health intervention. Given the growing body of occupational health psychology interventions, and given the amount of time, money, and effort that are put into developing and implementing workplace interventions, it is important to increase the effectiveness and likelihood of success of such interventions. This study assisted in identifying important variables, such as engagement in the intervention program, job control, and perceived organizational support, that can influence the effectiveness of such interventions. These results may help employees and employers identify factors that may influence the effectiveness of interventions in increasing recovery activities and reducing

stress and strain, and aid in altering the factors that are within their control (e.g., engagement in the program; perceived organizational support; job control).

Conclusion

In conclusion, the goal of this study was to examine individual and work-related factors that may influence training effectiveness over time in an employee health intervention program (i.e., ABLE). Although not all dependent variables (i.e., stress, strain, social affiliation, self-reward) could be examined due to similar slopes among participants, indicating that there was not a lot of variability between participants on these variables and therefore, resulted in not being able to examine moderators for these variables, the analyses that were performed suggested that engagement in the intervention program, procrastination, perceived organizational support, and job control can influence one's success in an intervention program over time, particularly in increasing recovery experiences (i.e., relaxation, mastery, control, physical activity, and fun/humour).

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Table 1.

Correlations among Sample 1 and Sample 2 study variables at pre-intervention. Scale reliabilities are presented in bold and italics along the diagonal.

			Sample 2																	
Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	*M*	*SD*
1. Age	43.80	9.85	**(-)**	-.03	.07	-.05	.00	-.10	.05	.00	-.03	-.04	.03	-.07	-.07	-.08	.04	-.06	43.32	9.24
2. Gender	-	-	.15	**(-)**	-.19[a]	-.13	-.09	.03	.10	.14	.05	.09	.21[a]	.17	.07	-.03	.11	.12	-	-
3. Session	-	-	-.02	-.01	**(-)**	-.06	.01	-.12	-.20[a]	-.19[a]	-.11	-.06	.05	-.02	-.12	.07	-.21[a]	-.13	-	-
4. Strain	1.74	0.69	-.03	.22[a]	.38[c]	***.89* (.87)**	.51[c]	.06	-.20[a]	-.21[a]	-.31[c]	-.24[b]	-.12	-.24[b]	-.17	.26[a]	-.13	.00	1.44	0.62
5. Stress	1.09	0.57	-.13	.20[a]	.06	.48[c]	***.78* (.80)**	-.14	-.34[c]	-.08	-.34[c]	-.10	-.01	-.12	-.20[a]	.13	-.10	-.09	1.16	0.58
6. Psycho Detach.	2.73	0.99	.14	-.14	.13	-.16	-.26	***.89* (.89)**	.33[c]	.13	.13	.07	.17	.03	.05	.15	.08	.16	2.88	0.92
7. Relaxation	3.01	1.00	.15	-.14	-.07	-.39[c]	-.54[c]	.37[c]	***.92* (.92)**	.25[b]	.42[c]	.45[c]	.12	.42[c]	.50[c]	-.05	.10	.04	3.36	0.91
8. Mastery	2.64	1.05	.00	-.13	.19[a]	-.20[a]	.02	.08	.25[b]	***.92* (.92)**	.28[b]	.50[c]	.45[c]	.56[c]	.46[c]	-.14	.13	.16	2.91	1.03
9. Control	3.19	0.87	.02	-.02	-.14	-.22[a]	-.22[a]	.22[a]	.45[c]	.19[a]	***.82* (.86)**	.37[c]	.06	.32[c]	.47[c]	.07	.10	.07	3.30	0.86
10. Social Affil.	3.54	0.88	.05	.02	.19[a]	-.17	-.29[b]	.04	.49[c]	.26[b]	.41[c]	***.84* (.87)**	.37[c]	.64[c]	.39[c]	.03	.26[b]	.17	3.75	0.79
11. Physical Act.	3.02	1.34	-.09	-.20	-.18	-.14	-.08	.05	.14	.38[c]	.17	.25[b]	***.96* (.93)**	.34[c]	.13	.18	.04	.05	3.17	1.11
12. Fun/Humour	3.41	1.01	-.12	-.10	-.24[a]	-.23[a]	-.29[b]	.04	.42[c]	.35[c]	.40[c]	.70[c]	.40[c]	***.96* (.88)**	.51	-.12	.14	.05	3.57	0.78
13. Self-reward	2.57	1.07	.07	-.06	-.03	-.17	-.29[b]	.15	.55[c]	.32[b]	.48[c]	.53[c]	.26[b]	.49[c]	***.86* (.87)**	.00	.11	.10	2.82	0.98
14. Procrastination	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**(.92)**	-.15	-.08	2.75	0.87
15. Job control	3.18	0.76	.10	.19	-.06	-.14	-.17	.01	.30[b]	.08	.26[a]	.35[b]	.01	.27[a]	.23[a]	-	***.79* (.84)**	.48[c]	3.17	0.83
16. Perc. Org. Sup.	3.30	0.88	-.06	.10	-.23[a]	-.25[a]	-.30[b]	.02	.31[b]	.18	.28[b]	.29[b]	.24[a]	.29[b]	.23[a]	-	.60[c]	***.88* (.85)**	3.00	0.86
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
			Sample 1																	

Note. [a]*p*< .05, [b]*p*< .01, [c]*p*< .001

Note. Sample 1 data are presented in the lower diagonal; Sample 2 data are presented in the upper diagonal.

Note. Reliabilities are presented in bold and italics; Sample 1 reliability are presented outside the parentheses and Sample 2 reliabilities are presented in parentheses.

Note. Procrastination was not assessed in Sample 1.

Table 2.

Correlations among Sample 1 and Sample 2 study variables at post-intervention. Scale reliabilities are presented in bold and italics along the diagonal.

			Sample 2													
Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	*M*	*SD*
1. Strain	1.66	.46	**.86 (.86)**	.55[c]	-.18[a]	-.26[b]	-.14	-.29[b]	-.25[b]	-.15	-.14	.18[a]	-.18[a]	-.04	1.12	.58
2. Stress	.66	.48	.55[c]	**.87 (.77)**	-.26[b]	-.31[b]	-.05	-.27[b]	-.23[b]	.08	-.09	-.18[a]	-.18[a]	-.05	.80	.44
3. Psycho Detach.	3.31	1.08	-.40[c]	-.45[c]	**.92 (.88)**	.51[c]	.38[c]	.38[c]	.21[a]	.08	.24[b]	.09	.09	.09	3.15	.95
4. Relaxation	3.63	.98	-.39[c]	-.41[c]	.61[c]	**.96 (.94)**	.47[c]	.47[c]	.53[c]	.33[c]	.47[c]	.51[c]	.51[c]	.30[b]	3.59	.86
5. Mastery	3.23	1.00	-.18	-.19	.39[c]	.50[c]	**.93 (.90)**	.34[c]	.35[c]	.43[c]	.46[c]	.33[c]	.33[c]	.07	3.08	.98
6. Control	3.68	.91	-.27[b]	-.41[c]	.36[c]	.54[c]	.42[c]	**.90 (.88)**	.40[c]	.28[b]	.38[c]	.45[c]	-.45[c]	.01	3.46	.84
7. Social Affil.	4.06	.74	-.36[c]	-.21	.24[a]	.45[c]	.34[c]	.50[c]	**.90 (.87)**	.35[c]	.53[c]	.44[c]	-.44[c]	.25[b]	3.91	.73
8. Physical Act.	3.12	1.27	-.26[b]	-.11	.02	.16	.15	.05	.18	**.94 (.92)**	.45[c]	.21[a]	.21[a]	-.02	3.60	.98
9. Hope/Optimism	3.83	.83	-.22[a]	-.15	.23[a]	.22[a]	.20[a]	.27[b]	.55[a]	.10	**.87 (.82)**	.42[c]	.42[c]	.06	3.73	.72
10. Fun/Humour	3.91	.77	-.41[c]	-.32[b]	.29[b]	.48[c]	.36[c]	.47[c]	.68[c]	.17	.62[c]	**.91 (.91)**	.48[c]	.16	3.82	.76
11. Self-reward	3.32	1.02	-.36[c]	-.35[c]	.38[c]	.64[c]	.51[c]	.55[c]	.60[c]	.13	.41[c]	.66[c]	**.89 (.88)**	.26[b]	3.19	.91
12. Engage in ABLE	3.48	.79	-.20	-.23	.30[a]	.33[a]	.27[a]	.27[a]	.11	.28[a]	.05	.01	.15	**.89 (.94)**	4.08	.77
			1	2	4	5	6	7	9	10	11	12	13	15		
			Sample 1													

Note. [a]*p< .05,* [b]*p< .01,* [c]*p< .001*

Note. Sample 1 data are presented in the lower diagonal; Sample 2 data are presented in the upper diagonal.

Note. Reliabilities are presented in bold and italics; Sample 1 reliability are presented outside the parentheses and Sample 2 reliabilities are presented in parentheses.

Table 3.
Correlations among Sample 1 and Sample 2 study variables at follow-up. Scale reliabilities are presented in bold and italics along the diagonal.

			Sample 2											
Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	*M*	*SD*
1. Strain	1.62	.48	**.86 (.90)**	.66[c]	.01	.29[b]	-.25[b]	-.34[c]	-.31[b]	.20[a]	-.36[c]	-28[b]	1.07	.66
2. Stress	-	-	-	**(.83)**	-.12	-.42[c]	.15	.21[a]	-.40[c]	-.15	-.34[c]	-.33[c]	.72	.51
3. Psycho Detach.	3.18	1.15	-.26[a]	-	**.75 (.83)**	.32[b]	.15	.30[b]	.13	.06	.31[b]	.19[a]	3.16	.83
4. Relaxation	3.76	1.00	-.36[b]	-	.50[c]	**.88 (92)**	.45[c]	.55[c]	.39[c]	.31[b]	.55[c]	.51[c]	3.68	.78
5. Mastery	3.36	1.09	-.23	-	.42[c]	.55[c]	**.75 (.91)**	.32[b]	.36[c]	.47[c]	.50[c]	.48[c]	3.12	1.00
6. Control	3.61	1.00	-.27[b]	-	.34[b]	.63[c]	.51[c]	**.76 (-)**	.15	.10	.36[c]	.39[c]	3.51	.97
7. Social Affil.	3.95	.86	-.36[b]	-	.32[b]	.60[c]	.44[c]	.52[c]	**.78 (-)**	.39[c]	.51[c]	.42[c]	4.04	.58
8. Physical Act.	3.28	1.22	-.27[b]	-	.16	.17	.31[b]	.11	.13	**.86 (.92)**	.38[c]	.44[c]	3.57	.99
9. Fun/Humour	3.73	.91	-.46[c]	-	.46[c]	.70[c]	.46[c]	.55[c]	.60[c]	.18	**.92 (.93)**	.60[c]	3.75	.77
10. Self-reward	-	-	-	-	-	-	-	-	-	-	-	**(.88)**	3.17	.96
			1	2	3	4	5	6	7	8	9	10		
						Sample 1								

Note. [a]*p< .05,* [b]*p< .01,* [c]*p< .001*
Note. Sample 1 data are presented in the lower diagonal; Sample 2 data are presented in the upper diagonal.
Note. Reliabilities are presented in bold and italics; Sample 1 reliability are presented outside the parentheses and Sample 2 reliabilities are presented in parentheses.
Note. Stress and self-reward were not assessed at follow-up in Sample 1.

Table 4.
Testing the difference between a constrained and unconstrained model on means, variances, and intercorrelations among group 1 and group 2 outcome parameters in Sample 1 and Sample 2.

	Sample 1				Sample 2			
Variables	χ^2difference[1]	df	χ^2difference[2]	df	χ^2difference[1]	df	χ^2difference[2]	df
1. Strain	23.12[c]	6	8.72[a]	3	6.95	6		
2. Stress	-	-			5.88	6		
3. Psycho Detach.	5.97	6			14.87[a]	6	1.78	3
4. Relaxation	14.72[a]	6	3.51	3	3.46	6		
5. Mastery	11.57	6			4.68	6		
6. Control	3.59	6			17.81[b]	6	3.38	3
7. Social Affiliation	4.06	6			19.76[b]	6	.37	3
8. Physical Act.	4.57	6			4.88	6		
9. Fun/Humour	6.62	6			9.13	6		
10. Self-reward	-	-			10.73	6		

* *Note.* [a]*p< .05,* [b]*p< .01,* [c]*p< .001*

* *Note.* 1 = chi square difference test for means, variances, and intercorrelations; 2 = chi square difference test for means and intercorrelations

Table 5.
Linear growth curve with random intercepts results for Sample 1 and Sample 2.

	Sample 1					Sample 2				
	Coefficient	Standard Error	Approx t	df	p	Coefficient	Standard Error	Approx t	df	p
1. Strain	-0.03	0.03	-0.82	137	0.415	-0.15	0.03	-5.50	180	<.001
2. Stress	-	-	-	-	-	-0.20	0.03	-6.47	180	<.001
3. Psycho Detach.	0.22	0.06	3.61	133	<.001	0.17	0.05	3.34	179	0.001
4. Relaxation	0.30	0.06	5.22	132	<.001	0.16	0.05	3.02	179	0.003
5. Mastery	0.28	0.07	4.02	133	<.001	0.12	0.05	2.30	178	0.023
6. Control	0.14	0.06	2.32	132	0.022	0.08	0.05	1.60	179	0.112
7. Social Affil.	0.22	0.06	3.99	132	<.001	0.16	0.04	3.61	179	<.001
8. Physical Act.	0.28	0.07	4.15	134	<.001	0.21	0.05	3.91	178	<.001
9. Fun/Humour	0.19	0.06	3.46	132	<.001	0.09	0.05	1.82	178	0.070
10. Self-reward	-	-	-	-	-	0.14	0.05	2.61	178	0.010

Table 6.

Random coefficients model to test slope variability results for Sample 1 and Sample 2.

	Sample 1					Sample 2				
	Standard Deviation	Variance Component	df	x^2	p	Standard Deviation	Variance Component	df	x^2	p
1. Strain	-	-	-	-	-	0.09	0.01	95	107.34	0.182
2. Stress	-	-	-	-	-	0.06	0.00	95	100.31	0.335
3. Psycho Detach.	0.25	0.06	83	106.00	0.045	0.07	0.00	95	88.05	>.500
4. Relaxation	0.11	0.01	83	95.60	0.163	0.26	0.07	95	126.36	0.017
5. Mastery	0.24	0.06	83	98.65	0.116	0.29	0.08	95	128.08	0.013
6. Control	0.36	0.13	83	134.92	<.001	-	-	-	-	-
7. Social Affil.	0.20	0.04	83	99.77	0.101	0.19	0.03	95	112.94	0.101
8. Physical Act.	0.36	0.13	85	114.93	0.017	0.21	0.04	95	114.03	0.089
9. Fun/Humour	0.32	0.10	83	128.00	0.001	-	-	-	-	-
10. Self-reward	-	-	-	-	-	0.17	0.03	95	106.43	0.199

*Note - indicates that this variable was not examined in this analyses

Table 7.
Cross-level linear growth model results for Sample 1 and Sample 2.

	Sample 1						Sample 2				
	Coefficient	Standard Error	Approx t	df	p		Coefficient	Standard Error	Approx t	df	p
Psychological Detachment						Relaxation					
Engagement	0.05	0.06	0.84	74	0.403		0.17	0.03	4.89	83	**<.001**
Procrastination	-	-	-	-	-		-0.08	0.03	-2.68	83	**0.009**
Perc. Org. Sup.	0.01	0.05	0.25	74	0.800		-0.06	0.03	-1.99	83	**0.050**
Job Control	-0.02	0.06	-0.36	74	0.720		-0.02	0.03	-0.89	83	0.378
Control						Mastery					
Engagement	0.08	0.05	1.58	74	0.118		0.08	0.05	1.59	83	0.116
Procrastination	-	-	-	-	-		-0.08	0.02	-4.08	83	0.064
Perc. Org. Sup.	0.09	0.04	2.25	74	**0.027**		-0.03	0.04	-0.81	83	0.423
Job Control	0.15	0.05	2.97	74	**0.004**		-0.03	0.04	-0.74	83	0.459
Physical Activity											
Engagement	0.04	0.06	0.60	74	0.548						
Perc. Org. Sup.	0.11	0.06	2.01	74	**0.030**						
Job Control	0.11	0.06	1.89	74	0.063						
Fun/Humour											
Engagement	0.05	0.04	1.05	74	0.298						
Perc. Org. Sup.	0.10	0.03	2.82	74	**0.006**						
Job Control	0.11	0.04	2.75	74	**0.008**						

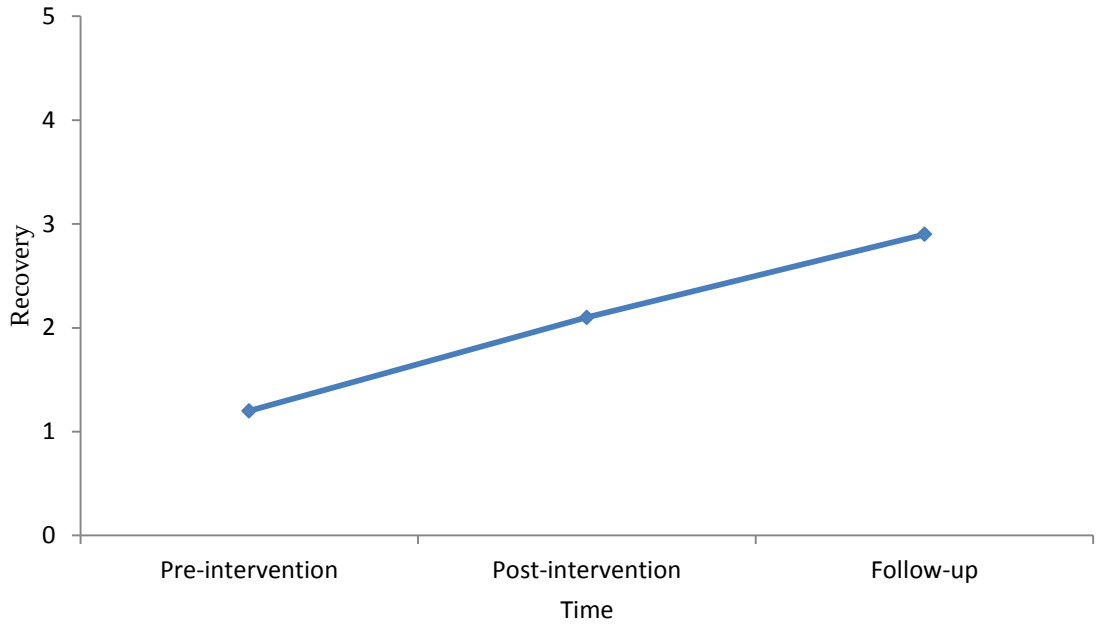

Figure 1. Hypothesized linear trend of recovery experiences across time

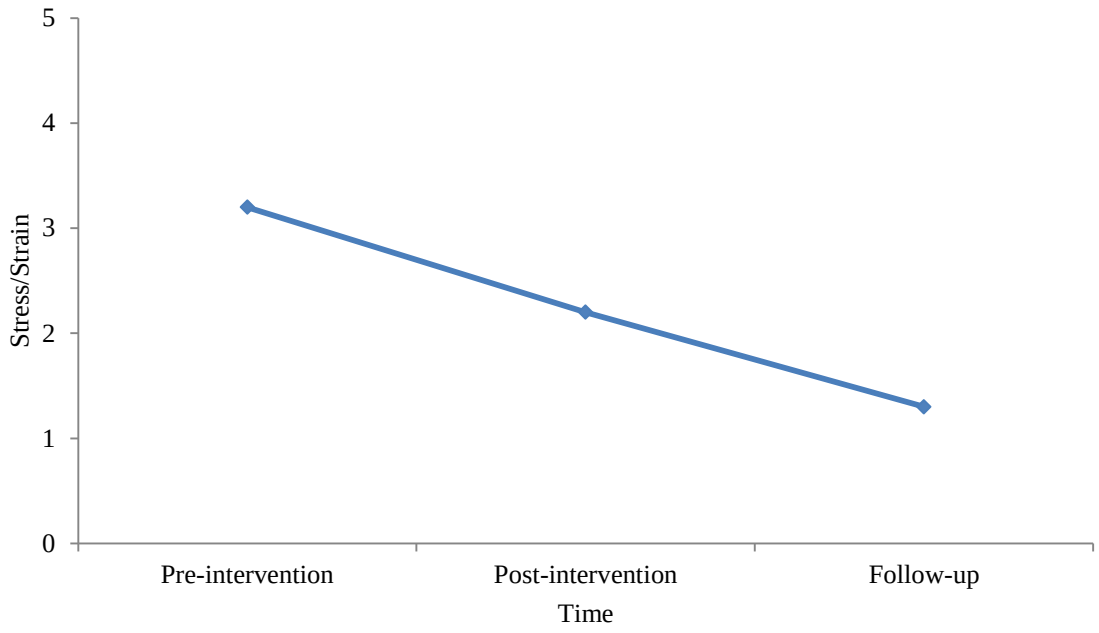

Figure 2. Hypothesized linear trend of stress and strain across time.

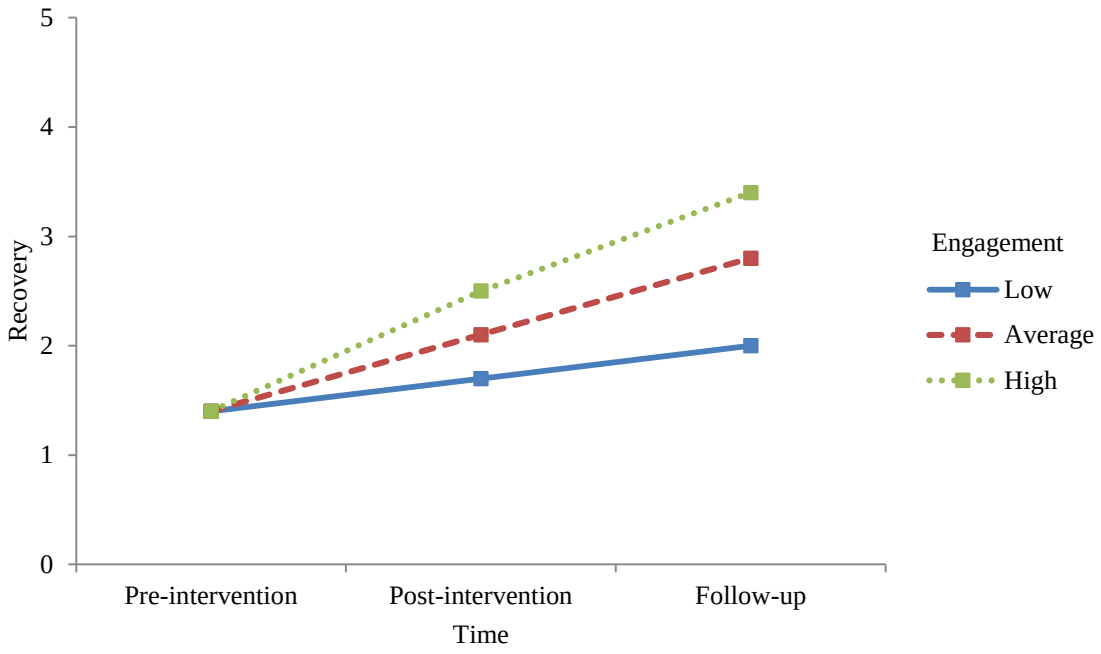

Figure 3. Hypothesized recovery experiences relationship moderated by engagement in the program. Specifically, participants' recovery experiences relationship with time will change in strength depending on their level of engagement in the program (i.e., low, average, high).

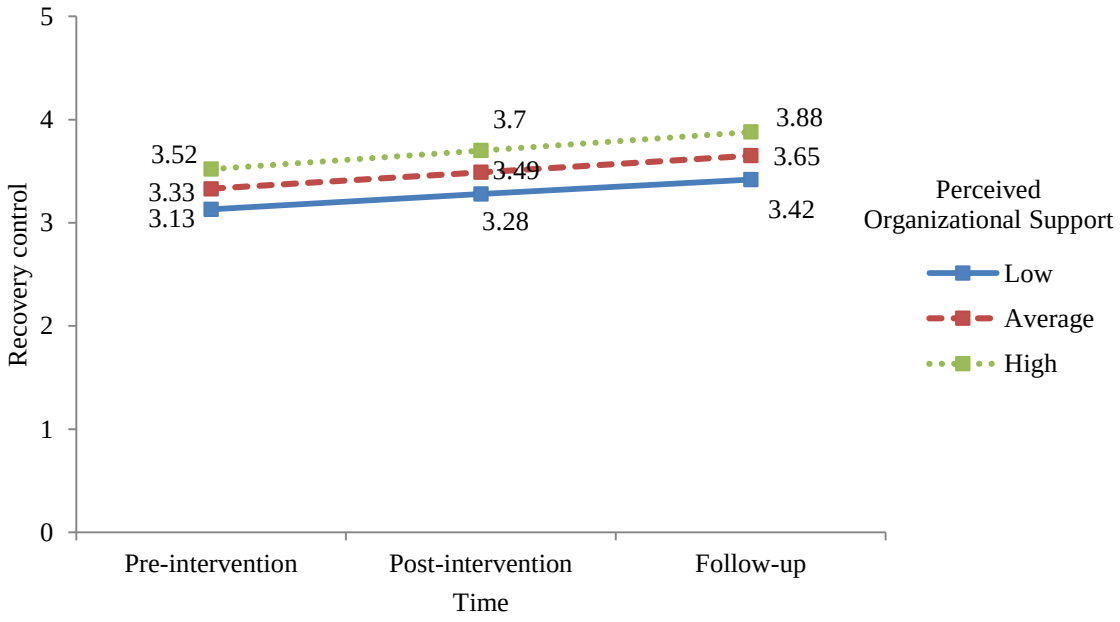

Figure 4. Recovery control subscale relationship moderated by perceived organizational support in Sample 1. Specifically, participants who reported higher perceived organizational support reported a greater increase in control recovery over time.

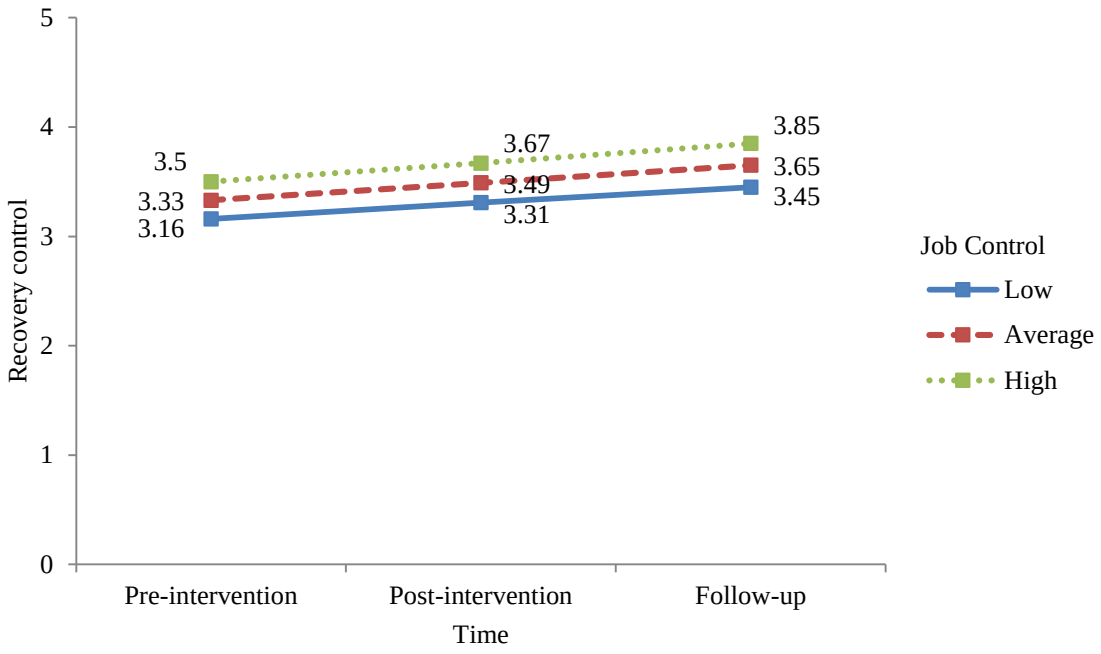

Figure 5. Recovery control subscale relationship moderated by job control in Sample 1. Specifically, participants who reported higher job control reported greater increases in control recovery over time.

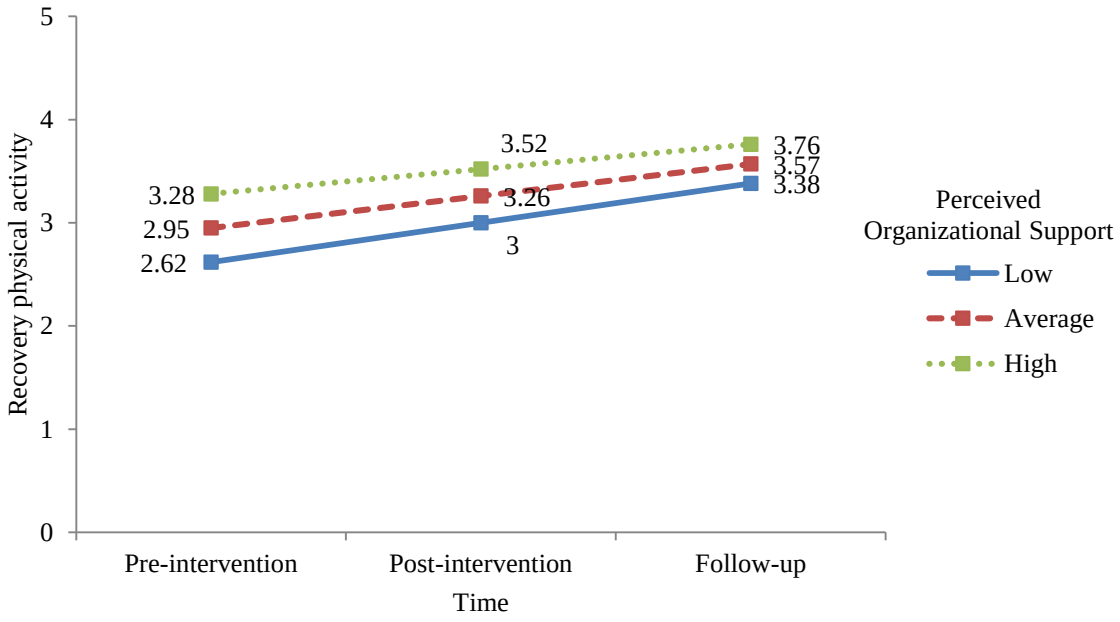

Figure 6. Recovery physical activity subscale relationship moderated by perceived organizational support in Sample 1. Specifically, participants who reported lower perceived organizational support reported greater increases in physical activity recovery over time.

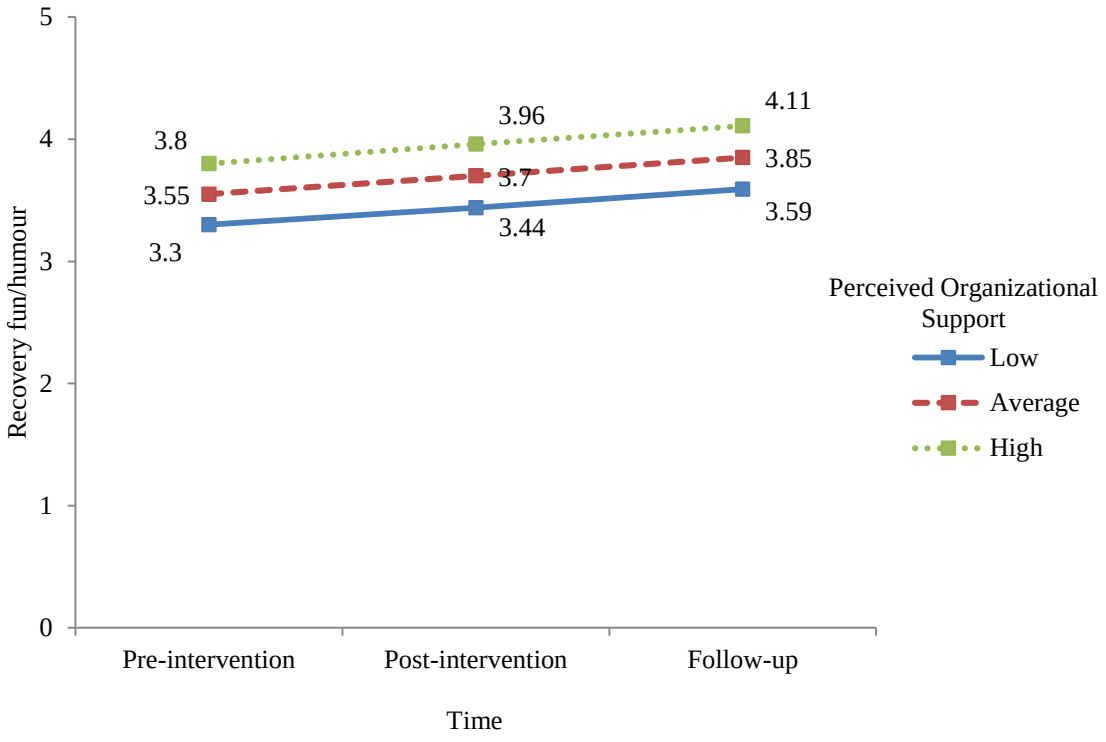

Figure 7. Recovery fun/humour subscale relationship moderated by perceived organizational support in Sample 1. Specifically, participants who reported higher perceived organizational support reported greater increases in fun/humour recovery over time.

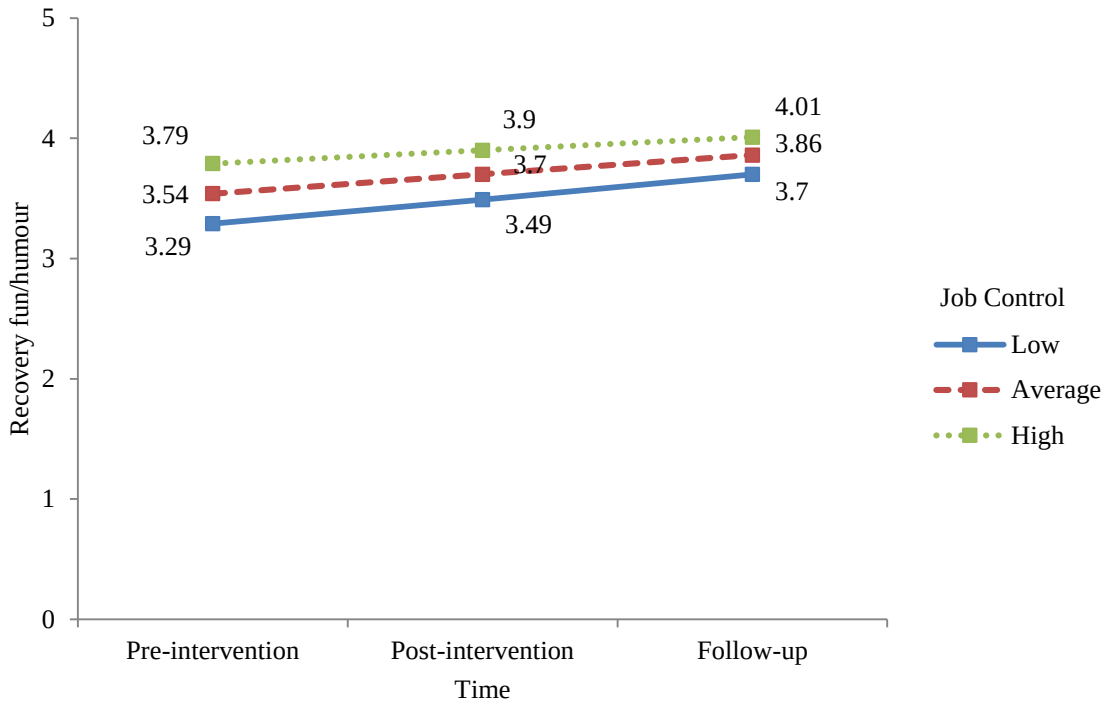

Figure 8. Recovery fun/humour subscale relationship moderated by job control in Sample 1. Specifically, participants who reported lower job control reported greater increases in fun/humour recovery over time.

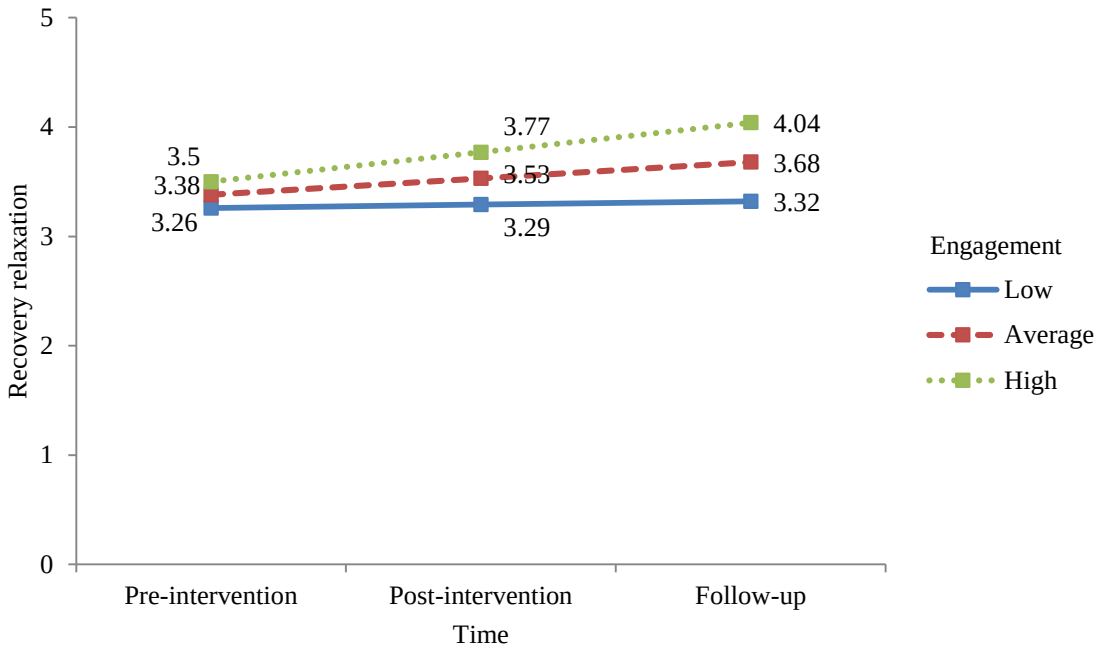

Figure 9. Recovery relaxation subscale relationship moderated by engagement in the program in Sample 2. Specifically, participants who had higher engagement in the program reported greater increases in relaxation recovery over time.

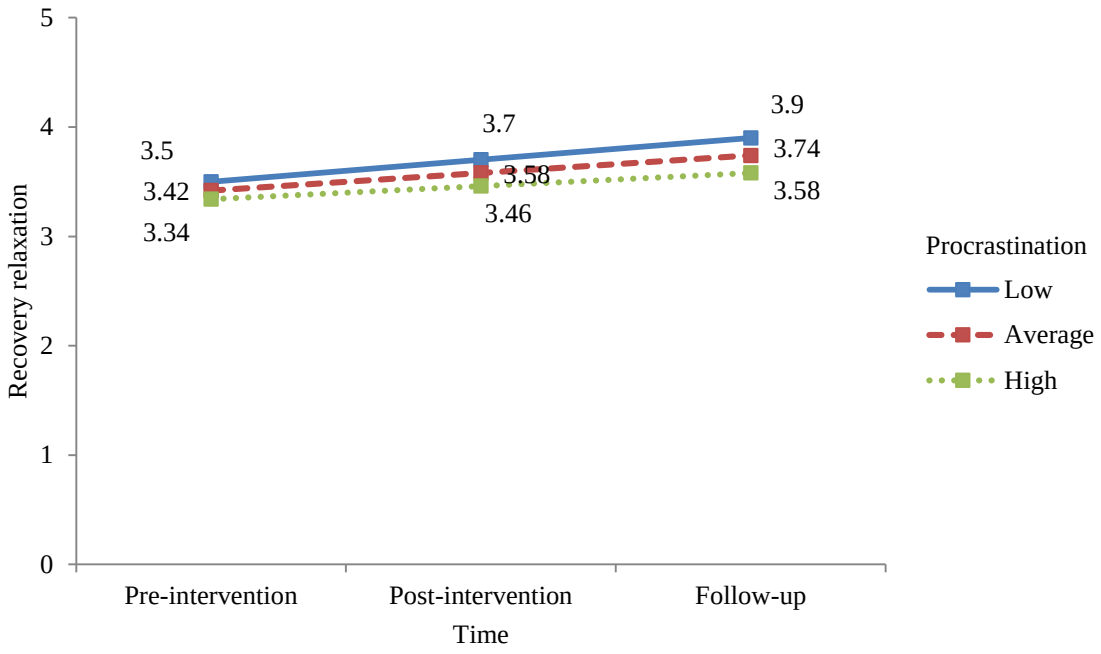

Figure 10. Recovery relaxation subscale relationship moderated by procrastination in Sample 2. Specifically, participants who had lower procrastination reported greater increases in relaxation recovery over time.

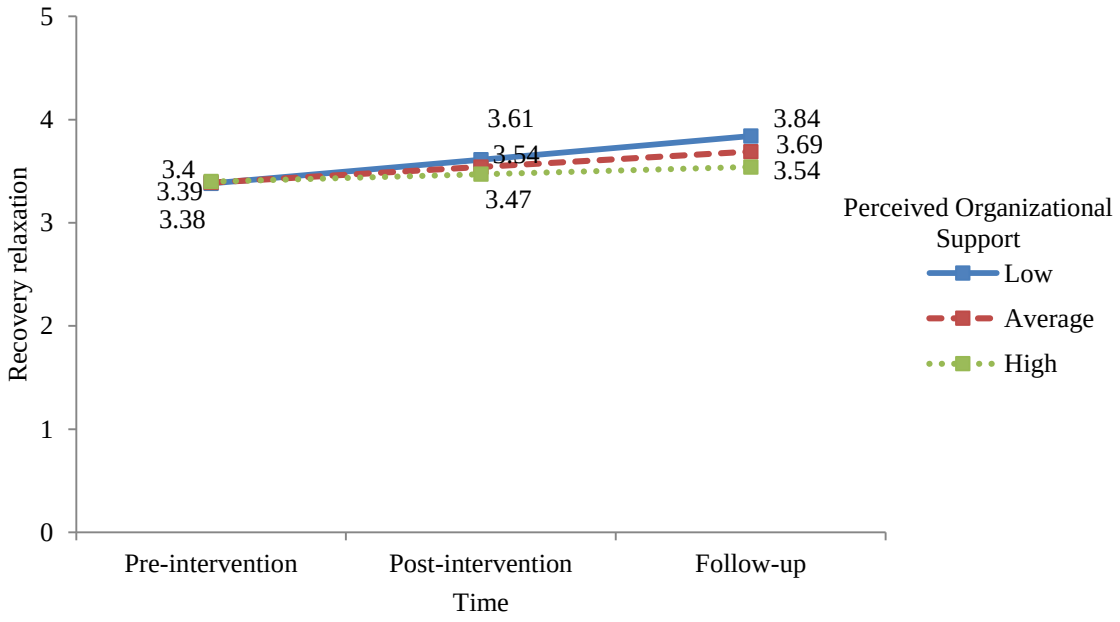

Figure 11. Recovery relaxation subscale relationship moderated by perceived organizational support in Sample 2. Specifically, participants who had lower perceived organizational support reported greater increases in relaxation recovery over time.

Appendix A
Measures

Demographics[4]

1. Gender:
[ ] Female
[ ] Male

2. Age:

3. Employer:

4. Occupation:

5. What is your current marital status?
[ ] Single
[ ] Involved
[ ] Common law
[ ] Married
[ ] Separated
[ ] Divorced

Strain Symptoms Checklist (Bartone, Ursano, Wright, & Ingraham, 1989)[5]

The following is a list of health complaints that people sometimes have. Using the scale below, please indicate how often you have experienced each of these complaints in the past month.

0 = Never, 1 = Almost Never, 2 = Sometimes, 3 = Fairly Often, 4 = Almost Always, to 5 = Always

1. General aches or pains
2. Sweating hands, feeling wet & clammy
3. Nervousness or tenseness
4. Muscle twitching or trembling
5. Rapid heartbeat (while not exercising or working hard)
6. Feeling down or blue or depressed
7. Difficulty concentrating
8. Loss in interest in things, such as TV, news, & friends
9. Taking medication to sleep or calm down
10. Shortness of breath (while not exercising or working hard)
11. Overly tired/lack of energy

[4] Measured during the screening survey
[5] Measured at pre-intervention, post-intervention, and follow-up

12. Dizziness or faintness
13. Common cold of flu
14. Upset stomach
15. Headaches
16. Skin rashes or itching
17. Trouble sleeping
18. Crying
19. Lack of appetite
20. Feeling life is pointless

Depression, Anxiety, Stress Scale (DASS)[5]

Please read each statement and indicate the number (0, 1, 2, or 3) that indicate how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

0 = *did not apply to me at all,* 1 = *Applied to me to some degree, or some of the time,* 2 = *Applied to me to a considerable degree, or a good part of the time,* 3 = *Applied to me very much, or most of the time*

1. Found it hard to wind down (S)
2. I was aware of dryness of the mouth (A)
3. I couldn't seem to experience any positive feeling at all (D)
4. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion) (A)
5. I found it difficult to work up the initiative to do things (D)
6. I tended to over-react to situations (S)
7. I experienced trembling (e.g., in the hands) (A)
8. I felt that I was using a lot of nervous energy (S)
9. I was worried about situations in which I might panic and make a fool of myself (A)
10. I felt that I had nothing to look forward to (D)
11. I found myself getting agitated (S)
12. I found it difficult to relax (S)
13. I felt down-hearted and blue (D)
14. I was intolerant of anything that kept me from getting on with what I was doing (S)
15. I felt I was close to panic (A)
16. I was unable to become enthusiastic about anything (D)
17. I felt I wasn't worth much as a person (D)
18. I felt that I was rather touchy (S)
19. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat) (A)
20. I felt scared without any good reason (A)
21. I felt that life was meaningless (D)

Recovery Experience Questionnaire – Expanded (Stevens, 2010)[5]

Using the scale below, please indicate the extent to which you agree with the following statements about your experiences after work over the past 30 days.

1 (s*trongly disagree*) to 5 (s*trongly agree*)

Detachment
1. I forgot about work.
2 I didn't think about work at all.
3. I distanced myself from my work.
4. I got a break from the demands of work.
Relaxation
5. I kicked back and relaxed.
6. I did relaxing things.
7. I used the time to relax.
8. I took time for leisure.
Mastery
9. I learned new things.
10. I sought out intellectual challenges.
11. I did things that challenged me.
12. I did things to broaden my horizons.
Control
13. I felt like I could decide for myself what to do.
14. I decided my own schedule.
15. I determined for myself how I spent my time.
16. I took care of things the way I wanted them done.
Planning
17. I got myself organized (e.g., made lists, cleaned up).
18. I got things checked off my "to do" list.
Social Affiliation
19. I spent quality time with friends and/or family.
20. I socialized with others.
21. I kept in touch with friends and/or family (e.g., phone, Facebook, email).
22. I spent time with people I care about.
Physical Activities
23. I did things that were physically demanding (e.g., housework, gardening, exercise).
24. I engaged in activities that increased my heart rate.
25. I engaged in physical activity.
26. I participated in sports or active recreational activities.
27. I did things that required physical exertion.
Hope/Optimism
28. I day dreamed about my future.
29. I planned activities, trips, or events.

30. I thought about what I would like to do or attain in the future (e.g., vacation, new house, dream job).
31. I thought about the positive things that are going to happen.
32. I looked forward to upcoming events.

Fun/Humour

33. I did things that made me laugh.
34. I did things that were fun.
35. I engaged in activities that I find exiting.
36. I tried to see the humour in situations.
37. I joked around.

Self-reward

38. I spent some quality "me time".
39. I rewarded myself with something special.
40. I pampered myself.
41. I treated myself, I bought something that I really wanted.

Condensed Pure Procrastination Scale (PPS; Steel, 2010)[5]

Using the following scale, please indicate how strongly you disagree or agree with each of the following statements using the scale below.

1 = (s*trongly disagree*) *to 5* = (s*trongly Agree*)

1. I tend to put off making decisions
2. I waste time by doing non-work tasks
3. I find myself performing tasks that I had intended to do days before.
4. I tend to say "I'll do it tomorrow".
5. I put things off until the last minute

Condensed Perceived Organizational Support (Eisenberg et al., 1986)[6]

Below are a number of statements about how organizations can act towards their employees. Please indicate the extent your organization acts in these ways. Base your answers using the scale provided.

1 (s*trongly disagree*) to 5 (s*trongly agree*)

1. My organization care about my well-being.
2. My organization fails to appreciate any extra effort from me.
3. My organization helps me when I have a problem.
4. My organization cares about my general satisfaction at work.
5. My organization cares about my opinions.

[6] Measured at pre-intervention

Condensed Job Control Scale (Modified; Dwyer & Ganster, 1991)[6]

Below are a number of questions about different aspects of your job. Using the following scale, please indicate the extent to which each is accurate or an inaccurate description of your job.

1 = Very Little, 2 = Little, 3 = A Moderate Amount, 4 = Much, 5 = Very Much

1. How much control do you have personally over how much work you get done?
2. How much control do have over how you do your work?
3. How much control do you have over the amount of resources (tools, materials) you received to do your job?
4. How much control do you have over how you work is evaluated?
5. How much control do you have over the monthly scheduling of your work?
6. How much control do you have over the hours that you work each day?
7. In general, how much overall control do you have over work and work-related matters?

Participant Engagement in the ABLE Program - Evaluation by Coaches[7]

1 (s*trongly disagree*) to 5 (s*trongly agree*).

The participant...

1. Read the materials.
2. Completed the weekly activities.
3. Tried out relevant skills and strategies.
4. Was receptive to my suggestions.
5. Was engaged in the program.
6. Was motivated to achieve goals.

[7] Measured after the phone-based coaching