

Healthy Workplace Practices and Employee Outcomes

Matthew J. Grawitch

Saint Louis University

Shawn Trares

Saint Louis University

Jennifer M. Kohler

Saint Louis University

The current study explored the relationship between employee satisfaction with different workplace practices (i.e., employee involvement, growth and development, work-life balance, recognition, health, and safety) and employee outcomes (i.e., organizational commitment, emotional exhaustion, mental well-being, and turnover intentions). A total of 152 university faculty and staff completed a web-survey. Overall, regression results indicated that satisfaction with healthy workplace practices was predictive of employee outcomes. In addition, satisfaction with employee involvement practices played a central role in predicting employee outcomes, whereas satisfaction with the other healthy workplace practices was somewhat less influential. Overall, our results suggest that organizations may increase some of the benefits of different healthy workplace programs for employees if they rely on employee involvement in program development.

Keywords: healthy workplace, employee involvement, employee attitudes, university personnel

Stress and health have become important topics in modern society. According to research cited by the National Institute for Occupational Safety and Health (NIOSH), 40% of employees believe their jobs are “very” or “extremely” stressful and at least 26% of employees feel “burned out” at work (NIOSH, 2006). The American Psychological Association (APA) re-

Matthew J. Grawitch and Jennifer M. Kohler, School for Professional Studies, Saint Louis University; Shawn Trares, Department of Psychology, Saint Louis University.

Correspondence concerning this article should be addressed to Matthew J. Grawitch, School for Professional Studies, Saint Louis University, 3322 Olive Boulevard, St. Louis, MO 63103. E-mail: grawitch@slu.edu

ports that job stress costs U.S. companies about \$300 billion a year in absenteeism, productivity loss, turnover, and health care costs (APA, 2006). In light of such statistics, it is not surprising that companies have begun to focus more and more on developing workplace programs that target the physical and mental health of their employees.

While it is important to develop workplace practices that promote positive health outcomes and remediate negative stress and health outcomes, it is also important that organizations focus on the needs of employees in developing such programs (Munz & Kohler, 1997). Employees in organizations do not all have the same values, expectations of work, backgrounds, and family arrangements. If programs do not align with the needs of employees, then it would be expected that employees would not use them, thus reducing the positive benefits of such programs (Grawitch, Gottschalk, & Munz, 2006). Therefore, it is important to assess not only actual practices, but also the extent to which employees value and are satisfied with those practices.

The purpose of the current study was to examine the relationship between satisfaction with healthy workplace practices and other important outcomes, including organizational commitment and turnover intentions, in a university context. Universities focus on knowledge generation and dissemination in a service context and, thus, provide models for other organizations that emphasize either knowledge generation or customer service (Roth, 2005). In addition, since the 1990s, universities have begun consolidating their academic units as a way to reduce costs and promote efficiency. This trend is similar to what has been occurring in other contexts, such as the automotive industry, the health care industry, and the airline industry. As these industries restructure, often certain benefits are modified or eliminated, a process that can result in negative consequences for employees (and potentially for the organization itself).

The present research is a starting point for understanding effective means of revising (or even eliminating) certain benefits, as well as of development and implementation of new benefits. The current study aims to provide empirical support for the importance of five related sets of practices identified by Grawitch et al. (2006). These researchers introduced a model and framework based on a review of a disparate body of research, with an attempt to integrate that research. The model is consistent with similar conceptualizations of the healthy workplace (e.g., Kelloway & Day, 2005), except that others have attempted to integrate different sets of practices into a comprehensive framework.

CONCEPTUALIZATION OF THE HEALTHY WORKPLACE

The term “healthy workplace” is often used in occupational health domains to focus on health promotion programs (e.g., healthy lifestyle

programs) and illness/injury prevention programs (e.g., safety programs). Healthy workplace programs can target primary (preventive), secondary (in the moment), and tertiary (remedial or after-the-fact) levels of intervention (Tetrick & Quick, 2001). For example, programs emphasizing stress could target aspects of the workplace (primary), employee stress management skills (secondary), and medical care for those with stress-related illness (tertiary). Each of these three target areas can be combined to develop comprehensive interventions (Kohler & Munz, 2006).

Grawitch et al. (2006) redefined the expression “healthy workplace” to emphasize those programs and practices that promote employee health and well-being (in terms of both physical and mental health) and organizational effectiveness. The implication of their conceptualization is that there are many programs beyond traditional health promotion and illness/injury prevention programs that come together to create a healthy workplace. In their review of previous research across a variety of disciplines, Grawitch et al. specified five sets of healthy workplace practices.

- Employee involvement: programs and policies that involve employees in decision making, focusing on such aspects as job autonomy, self-managed work teams, and empowerment (e.g., Cohen, Ledford, & Spreitzer, 1996; Karasek & Theorell, 1990; Lawler, 1991);
- Employee growth and development: programs and policies that provide employees with the opportunity to increase their knowledge and skills and to apply their knowledge and skills to different situations, such as through advanced job training, continuing education, and tuition reimbursement (Jamison & O’Mara, 1991; Pfeffer, 1998);
- Employee recognition: programs and policies that provide monetary and nonmonetary rewards for employees, such as compensation and bonuses, the celebration of milestones within the organization (e.g., 5-year or 10-year anniversaries), and nonmonetary rewards (e.g., banquets, plaques; Browne, 2000);
- Work-life balance: programs and policies that help individuals balance their work and nonwork lives, such as flexible work arrangements, provision of childcare benefits, and allowing friends and family to use company recreational facilities (Frone, 2001; Quick, Henley, & Quick, 2004); and
- Health and safety: programs and policies that emphasize the traditional conceptualization of the healthy workplace, by focusing on the prevention, assessment, and treatment of health and safety issues, such as safety training, wellness programs, health screenings, and stress management training (Aldana, 2001).

Grawitch et al. (2006) argued that the five sets of healthy workplace

practices probably demonstrate some amount of interdependence. That is, although they may seem to be conceptually distinct, there are probably aspects of the practices that overlap with one another. For example, training itself appears to fall under the category of employee growth and development, but safety training would perhaps be most applicable to the health and safety category. Most notably, Grawitch et al. (2006) argued that because effective healthy workplace practices require the needs of employees to be considered, employee involvement probably represents a factor that overlaps to a fair extent with other practices. To say it differently, employee involvement may represent a superordinate set of practices that will be moderately to strongly related to each of the other practices.

The reason for this is that the level of employee involvement likely represents a philosophical orientation on the part of organizations and managers (e.g., Cohen et al., 1996; Wilson, Dejoy, Vandenberg, Richardson, & McGrath, 2004), which results in consistent behaviors that either promote or inhibit the involvement of employees (Edwards & Collinson, 2002). Organizations that develop a spirit of employee involvement would be likely to offer autonomy and participative decision-making (employee involvement practices) and would be more likely to utilize employee involvement strategies (e.g., soliciting input and collecting feedback) in developing and refining other types of practices as well (e.g., work-life balance, health and safety), making those practices more effective in the minds of employees (e.g., satisfaction, utilization; Parchman & Miller, 2003). Lawler (1991) defined this as the employee involvement context and proposed that high-involvement organizations create a culture of involvement and support by providing sufficient information, training, rewards, and power for employees to demonstrate the desired level of autonomy. If employee involvement plays a central role in the healthy workplace, then perceptions of employee involvement should demonstrate a correlation of at least a moderate level with perceptions of the other practices.

In addition, the Grawitch et al. model and the importance of employee involvement reflect an orientation toward developing and cultivating employees. This philosophy is consistent with the one advocated by Pfeffer (1998). Pfeffer argued that if organizations take care of the people they employ, then the people will take care of the organization, thus signifying the important relationship between the health and well-being of employees and the profitability and success of the organization. Thus, the need to involve employees in various aspects of the identification of organizational needs, the development and implementation of new programs, and the evaluation and refinement of existing programs is clearly consistent with Pfeffer's philosophy and is well supported in the literature. For example, Ludwig and Geller (2000) found that the amount of individual employee involvement positively influenced the beneficial effects of interventions designed to promote safety

among delivery drivers. Other studies, such as Vassie and Lucas (2001), have found evidence that greater involvement can lead to more positive perceptions of a variety of health and safety initiatives, including ergonomic changes, risk assessment, and a general climate of health and safety. Still other studies, such as Simmering, Colquitt, Noe, & Porter (2003), have found evidence that employee involvement in specific development activities leads to greater perceptions of “fit” than lower levels of involvement.

The vast majority of research on employee involvement suggests that programs with higher levels of involvement lead to greater direct benefits for employees and organizations. In addition, such research suggests that employee involvement is likely to affect the perceptions of employees regarding specific initiatives. Therefore, it seems likely that evaluations of programs related to all aspects of the healthy workplace would be more positive when employees perceive a higher level of involvement.

HEALTHY WORKPLACE PRACTICES AND INDIVIDUAL OUTCOMES

Grawitch et al. (2006) reviewed a variety of research in order to provide an empirical link between each category of workplace practices (e.g., employee involvement) and specific individual and organizational outcomes (e.g., organizational commitment, job satisfaction, morale, productivity, absenteeism, and turnover). Many of their conclusions were similar to those of Kelloway and Day (2005), who emphasized the need to take a holistic approach to creating a healthy workplace. However, as both reviews noted, there has been little, if any, previous research to compare the relative effects of each of these different programs. Therefore, an important starting point in evaluating the model is to compare the relative importance of employee perceptions of healthy workplace practices in predicting specific individual outcomes.

For the current study, the following outcomes were selected: organizational commitment, well-being, emotional exhaustion, and turnover intentions. Each of these outcomes has been found to be related to issues of job stress and workplace health (e.g., Kelloway & Day, 2005; Maslach, 2006; Spielberger, Vagg, & Wasala, 2001). Organizational commitment and turnover were specifically identified in the Grawitch et al. (2006) review. In isolation from each other, the results of research would suggest that each of the five practices is predictive of each of the outcomes. However, given that employee involvement may play such a large role in the other four practices, employee involvement may actually serve as a mediating mechanism in predicting employee outcomes. As such, these results would indicate that the

workplace practices of employee growth and development, recognition, work-life balance, and health and safety are necessary, but not sufficient, in influencing individual employee outcomes.

THE CURRENT STUDY

The current study was designed to compare the relative importance of the five sets of healthy workplace practices. A healthy workplace satisfaction instrument was designed for the current study to provide an exploratory assessment of the relative importance of each of the workplace practices with individual outcomes. Based on a review of the relevant literature and the propositions laid out by Grawitch et al. (2006), the following hypotheses were generated:

Hypothesis 1: It was hypothesized that satisfaction with the five sets of workplace practices would demonstrate at least moderate interrelationships ($r > .30$; H1a), and that satisfaction with employee involvement would demonstrate a greater relationship with the other four practices by possessing the greatest average correlation with the other factors (H1b).

Hypothesis 2: It was hypothesized that satisfaction with healthy workplace practices would be predictive of other employee outcomes (i.e., affective commitment; emotional exhaustion, well-being, turnover intentions—H2a), but that employee involvement would be the most significant predictor of those outcomes (H2b), in effect mediating the relationship between the other four practices and employee outcomes.

METHOD

Participants

Participants were 78 faculty and 74 staff of a Midwestern university for a total sample size of 152. A total of 109 participants were female (71.7%); their ages ranged from 22 to 63 years ($M = 39.45$, $SD = 12.55$). Of the total respondents, 46 had been in their current job less than 1 year (30.3%), 70 for 1–5 years (46.1%), 20 for 6–10 years (13.2%), and 16 for more than 10 years (10.5%). Finally, 45 of the respondents had received a doctorate or equivalent (29.6%), 58 a Master's degree (38.2%), and 49 a bachelor's degree (32.2%).

Measures

The survey consisted of several items to assess a variety of important constructs related to healthy workplace practices and employee outcomes. The order of presentation of the specific measures was randomized to control for any order effects.

Satisfaction With Healthy Workplace Practices

A measure of satisfaction with the five categories of workplace practices identified by Grawitch et al. (2006) was created for the current study. Respondents were provided with a description of each of the practices and some examples of each. They were then asked to respond to a series of four items about each set of practices as they perceived them in their organization. Items focused on (a) satisfaction with the practice, (b) perceived availability of the practice, (c) self-reported participation in the practice, and (d) the value employees perceived the organization placed on that practice. Each of these facets was identified by Grawitch et al. (2006) as important components of effectiveness and utilization, based on the work of Parchman and Miller (2003), Fitz-enz (1993), Munz and Kohler (1997), and others. The complete list of items can be obtained from the first author. Responses to all items were made using a 5-point scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). The alpha coefficients for the five scales were .91 (involvement), .94 (growth and development), .84 (recognition), .95 (work-life balance), and .89 (health and safety). The scales have not undergone rigorous psychometric development.

Factor analytic results using oblimin rotation (due to the hypothesized overlap among the factors) revealed that when employee involvement was not considered, four factors resulted, accounting for 80.22% of the variance in the items. In addition, the items loaded on the hypothesized factors, with factor loadings ranging from .71 to .93, and cross-loadings at or below .23. When employee involvement items were entered, however, the factor structure became more difficult to interpret, thus signifying that employee involvement is an integral part of all of the other practices. Complete results of the factor analysis can be obtained from the first author.

Emotional Exhaustion

Emotional Exhaustion was measured using the Emotional Exhaustion Scale from the Maslach Burnout Inventory (Maslach, Jackson, & Leiter,

1997). The emotional exhaustion scales consist of nine items measured on a 7-point scale, ranging from 0 (*Never*) to 6 (*Every day*). Example items include, "I feel burned out from my work" and "I feel frustrated by my job." The alpha coefficient for emotional exhaustion was .86.

General Mental Well-Being

General mental well-being was measured using a 12-item measure developed by Banks et al. (1980). Participants were asked to indicate to what extent they had recently experienced certain general mental health outcomes, including "lose sleep over worry" and "been able to face up to your problems." Responses were scored on a 4-point scale ranging from 1 (*Rarely*) to 4 (*Very often*). The alpha coefficient for general mental well-being was .85.

Affective Commitment

Affective commitment was measured using the affective commitment scale of the Organizational Commitment Scale developed by Allen and Meyer (1990). The affective commitment scale contains eight items, including "This organization has a great deal of personal meaning for me" and "I really feel as if this organization's problems are my own." Responses were scored on a 5-point scale, ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). The alpha coefficient for affective commitment was .88.

Turnover Intention

Turnover intention was measured using one item, "I intend to seek employment outside of this organization in the next year," with responses provided on a 5-point scale, ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*).

Procedure

Data collection occurred entirely through the use of a web survey. Respondents were contacted via a college distribution list. Response rate was approximately 35%. Respondents were asked to participate in the current study through an email invitation. They were provided a link to the web survey in this invitation. Respondents were then asked to complete the

survey. Each scale used in this study represented its own page of questions in the survey. The order of presentation of the instruments was randomized to control for any order effects. Upon completion of the survey items, respondents were asked to respond to a brief demographics questionnaire, and then submitted their responses.

RESULTS

Means, standard deviations, and correlations for all study variables can be found in Table 1. Several results are relevant to the current study. Sex was correlated with turnover ($r = .22, p < .05$). Tenure was negatively correlated with satisfaction with growth and development practices ($r = -.24, p < .05$) and health and safety practices ($r = -.17, p < .05$), and was positively correlated with commitment ($r = .24, p < .05$). Age was negatively correlated with satisfaction with employee involvement ($r = -.18, p < .05$), work-life balance ($r = -.29, p < .05$), and health and safety ($r = -.44, p < .05$), and positively associated with well-being ($r = .21, p < .05$). Finally, more educated employees reported more satisfaction with health and safety practices ($r = .16, p < .05$), greater intention to leave ($r = .38, p < .05$), less well-being ($r = -.33, p < .05$), and less commitment to the organization ($r = -.25, p < .05$). There were no significant differences on any of the outcomes for faculty and staff. All demographic variables that possessed a significant correlation with the satisfaction or outcome variables were used as controls in the analyses to take into account relationships that may have resulted due to demographics.

In addition, in support of H1a, there was significant overlap in satisfaction with the five sets of healthy workplace practices, supporting the arguments made by Grawitch et al. (2006). Correlations among the factors ranged from .36 (between growth and development and health and safety) to .65 (between employee involvement and work-life balance), with a mean correlation of .51 ($SD = .09$), suggesting that there were moderate amounts of overlap among satisfaction with the different practices, as expected. Providing general support for H1b, growth and development, recognition, work-life balance, and health and safety all correlated more strongly with employee involvement than they did among themselves. In fact, for all except health and safety, the difference in the correlation between that factor and employee involvement and the next highest correlation were all statistically significant (all t values were greater than 2.65, $DF = 149$).

Finally, the satisfaction factors demonstrated significant bivariate relationships with the outcome variables. These results suggest that focusing on a specific healthy workplace practice can yield some potential results for an

Table 1. Descriptive Statistics for all Study Variables

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Position	1.51	0.50													
2. Sex	1.72	0.45	.35*												
3. Tenure	2.07	1.01	-.03	-.16											
4. Age	39.45	12.55	.10	-.54*	.32*										
5. Education	2.03	0.79	.65*	.52*	-.11	-.60*									
6. Employee involvement	3.61	1.03	.10	-.04	-.09	-.18*	-.15								
7. Growth & development	3.39	1.12	-.08	.04	-.24	-.10	-.11	.63*							
8. Recognition	3.08	0.96	.07	.00	.01	-.13	.00	.64*	.49*						
9. Work-life balance	3.58	1.13	.03	-.04	-.15	-.29*	.01	.65*	.44*	.52*					
10. Health & safety	3.24	0.98	.13	.10	-.17	-.44*	.16*	.48*	.36*	.43*	.46*				
11. Emotional exhaustion	2.86	1.04	.07	.09	-.11	-.06	.13	-.50*	-.27*	-.22	-.33*	-.21*			
12. Well-being	3.34	0.51	-.16	-.11	.13	.21*	-.33*	.26*	.34*	.01	-.04	.11	-.56*		
13. Commitment	3.27	0.88	.00	-.03	.24	.08	-.25*	.57*	.39*	.39*	.42*	.20*	-.46*	.31*	
14. Turnover intent	2.56	1.46	.11	.22*	-.12	-.15	.38*	-.44*	-.23*	-.17	-.26*	-.27*	.45*	-.47*	-.64*

* $p < .05$.

organization. However, these results do not identify specific leverage points for influencing these outcomes. Additional analyses were therefore warranted to identify which healthy workplace practices were most predictive of each of the outcomes. In addition, some of the correlations were moderately strong, suggesting the possible presence of common method variance that could not be corrected for in the current study.

Predicting Employee Outcomes

For all analyses below, multiple regression was used to test specific relationships. Sex, tenure, age, and education were employed as the control variables, and satisfaction with healthy workplace practices was used as the predictor. These regression analyses were used to Test H2a, that satisfaction with the five workplace practices would significantly predict employee outcomes, and H2b, that satisfaction with employee involvement would mediate the relationship between satisfaction with the other four practices and employee outcomes.

In the first regression analysis, organizational commitment served as the outcome. In support of H2a, after controlling for the demographic variables, satisfaction with healthy workplace practices accounted for 31.2% of the variance in organizational commitment $\Delta F(5, 142) = 16.31, p < .001$ (top panel of Table 2). The primary predictor of organizational commitment was satisfaction with employee involvement programs ($\beta = .43, t = 3.30, p < .001$). However, when satisfaction with employee involvement was removed from the equation, the four remaining satisfaction factors accounted for 27.0% of the variance in organizational commitment (second panel of Table 2). In this revised equation, both satisfaction with growth and development ($\beta = .24, t = 2.99, p < .01$) and work-life balance ($\beta = .33, t = 3.91, p < .001$) played a crucial role in the prediction of organizational commitment. In other words, the results of this analysis support the contention that employee involvement subsumes, in many cases, some of the other workplace practice areas, supporting H2b.

In the second regression analysis, emotional exhaustion was used as the outcome variable. In support of H2b, after controlling for the demographic variables, satisfaction with healthy workplace practices accounted for 29.5% of the variance in emotional exhaustion, $\Delta F(5, 142) = 12.42, p < .001$ (third panel of Table 2). Again, satisfaction with employee involvement practices was the most powerful predictor ($\beta = -.77, t = -5.33, p < .001$). However, this time satisfaction with recognition programs was also a significant predictor ($\beta = .21, t = 2.22, p < .05$), suggesting the presence of a suppressor effect (its bivariate relationship went from $-.22$ to a regression coefficient of

Table 2. Regression Analysis Results for Organizational Commitment and Emotional Exhaustion

Outcome	Predictors	β	<i>R</i>	<i>F</i>
Organizational commitment (with employee involvement)	Final model		.675	13.23***
	Sex	.18*		
	Age	.10		
	Tenure	.29***		
	Education	-.18*		
	Employee involvement	.43***		
	Growth & development	.08		
	Recognition	.01		
	Work-life balance	.14		
	Health & safety	.01		
Organizational commitment (no employee involvement)	Final model		.644	12.65***
	Sex	.19*		
	Age	.07		
	Tenure	.33***		
	Education	-.26***		
	Growth & development	.24**		
	Recognition	.09		
	Work-life balance	.33***		
	Health & safety	.03		
	Emotional exhaustion (with employee involvement)	Final model		.571
Sex		-.03		
Age		-.22		
Tenure		-.11		
Education		-.10		
Employee involvement		-.77***		
Growth & development		.11		
Recognition		.21*		
Work-life balance		.04		
Health & safety		-.08		
Emotional exhaustion (no employee involvement)	Final model		.437	4.21***
	Sex	-.04		
	Age	-.15		
	Tenure	-.18*		
	Education	.04		
	Growth & development	-.17		
	Recognition	.06		
	Work-life balance	-.30**		
	Health & safety	-.13		

* $p < .05$. ** $p < .01$. *** $p < .001$.

.21). According to Tabachnick and Fidell (2007), a suppressor variable should be defined as one that “enhances the importance of other IVs by virtue of suppression of irrelevant variance in them” (p. 155). It makes little sense to try to interpret the meaning of that beta weight, except to say that after controlling for the shared variance with other variables, there is something about satisfaction with recognition that may be positively associated with emotional exhaustion. What that is, this study cannot specify.

In addition, after dropping satisfaction with employee involvement from the equation, much of that suppression effect disappeared (bottom panel of

Table 2). Instead, satisfaction with healthy workplace practices accounted for 16.0% of the variance in emotional exhaustion when employee involvement was excluded. The effect of recognition was reduced ($\beta = .06$), and now satisfaction with work-life balance practices was the most important predictor ($\beta = -.30$, $t = -3.01$, $p < .01$). Again, these results further support the idea that employee involvement is of the utmost importance and is substantially related to the other practice areas, thus supporting H2b.

In support of H2a, after controlling for the demographic variables, satisfaction with healthy workplace practices accounted for 22.5% of the variance in well-being, $\Delta F(5, 142) = 9.82$, $p < .001$. Deeper analysis revealed mixed support for the hypothesis. Specifically, all five satisfaction variables were significant predictors of well-being (top panel of Table 3). Employee involvement, growth and development, and health and safety all demonstrated regression coefficients in the expected positive direction, whereas recognition and work-life balance demonstrated significant coefficients in the negative direction (the bivariate coefficients were near zero). Therefore, while H2a was supported for well-being, H2b was not supported.

After removing employee involvement satisfaction from the equation, satisfaction with the other four workplace practices still accounted for 18.9% of the variance in well-being (second panel of Table 3). The results for this analysis demonstrated an increase in the strength of the prediction for growth and development ($\beta = .46$, $t = 5.33$, $p < .001$). However, the vast majority of the other relationships remained unchanged. Therefore, employee involvement did not cause the suppression effects, as it had in the previous analysis.

Overall, the results suggest that employee involvement, growth and development, and health and safety programs are influential in employee well-being. Furthermore, the results also suggest that organizations may want to pay particular attention to issues that may surface in the development and implementation of work-life balance and recognition practices, as there may be some aspects of these that lead to a reduction in well-being. Finally, this analysis was the first analysis that suggested a less important role for employee involvement as compared to the other four healthy workplace factors.

In the final regression analysis, turnover intentions were used as the outcome variable. After controlling for demographics, healthy workplace satisfaction factors accounted for 20.1% of the variance in turnover intentions, $\Delta F(5, 142) = 9.13$, $p < .001$ (third panel of Table 3), supporting H2b. As in previous analyses, employee involvement was the strongest predictor ($\beta = -.56$, $t = -4.01$, $p < .001$). In addition, satisfaction with health and safety practices was a significant predictor ($\beta = -.28$, $t = -3.26$, $p < .01$). Finally, recognition again demonstrated an apparent suppressor effect ($\beta = .20$, $t = 2.25$, $p < .05$), since its bivariate relationship with turnover intentions was $-.17$ (see Table 1). As in previous analyses, the results suggest that satisfaction with employee involvement may be the primary

Table 3. Regression Analysis Results for Well-Being and Turnover Intentions

Outcome	Predictors	β	R	F
Well-being (with employee involvement)	Final model		.593	8.54 ^{***}
	Sex	.05		
	Age	.10		
	Tenure	.18*		
	Education	-.22*		
	Employee involvement	.39**		
	Growth & development	.32**		
	Recognition	-.29**		
	Work-life balance	-.36**		
Well-being (no employee involvement)	Final model		.562	8.27 ^{***}
	Sex	.06		
	Age	.06		
	Tenure	.21**		
	Education	-.29**		
	Growth & development	.46 ^{***}		
	Recognition	-.21*		
	Work-life balance	-.19*		
	Health & safety	.23*		
Turnover intentions (with employee involvement)	Final model		.613	9.50 ^{***}
	Sex	.01		
	Age	-.10		
	Tenure	-.12		
	Education	.28**		
	Employee involvement	-.56 ^{***}		
	Growth & development	.11		
	Recognition	.20*		
	Work-life balance	.08		
Turnover intentions (no employee involvement)	Final model		.553	7.86 ^{***}
	Sex	.00		
	Age	-.05		
	Tenure	-.17*		
	Education	.38 ^{***}		
	Growth & development	-.09		
	Recognition	.10		
	Work-life balance	-.17		
	Health & safety	-.31 ^{***}		

* $p < .05$. ** $p < .01$. *** $p < .001$.

healthy workplace indicator of turnover intentions, although health and safety did demonstrate significant predictive capacity even when considering employee involvement.

After removing employee involvement satisfaction from the equation, satisfaction with the other four workplace practices still accounted for 13.0% of the variance in turnover intentions (bottom panel of Table 3). The results of this revised analysis demonstrated a slight increase in the strength of the prediction for health and safety ($\beta = -.31$, $t = -3.50$, $p = .001$) and eliminated the suppression effect of recognition. However, the vast majority

of the other relationships remained unchanged, suggesting that satisfaction with employee involvement and health and safety practices most influence turnover intentions, thus failing to support H2b.

DISCUSSION

The results of the current study suggest some conclusions regarding the perceptions of healthy workplace practices. First, as expected, satisfaction with employee involvement mediated the relationship between several of the other healthy workplace practices and the outcomes of organizational commitment and emotional exhaustion. These results suggest that employee involvement plays an integral role in understanding, developing, and evaluating some aspects of the healthy workplace, an idea that has been demonstrated with regard to other programs in organizations (Ludwig & Geller, 2000; Simmering et al., 2001; Vassie & Lucas, 2001). As such, following arguments laid out by Pfeffer (1998) and Lawler (1991), involving employees in decisions at some level most likely increases the ability of the organization to tailor programs to meet specific employee needs. It is interesting to note that this mediational effect was not evidenced for well-being or turnover intentions, both of which were less focused on affective outcomes.

It may be that employee involvement plays a more pivotal role in understanding the link between healthy workplace practices and affective outcomes than it does in the link with other outcomes, such as well-being and turnover intentions. This is not to say that employee involvement is unnecessary in developing healthy workplace programs and practices that promote other types of outcomes. Instead, there may be outcomes that are affected without the need to involve employees. It will be important to expand this research to include other types of nonaffective outcomes, including productivity, absenteeism, physical health, and injury rates, all of which are important occupational health outcomes (e.g., Spielberger et al., 2001), and many of which require techniques other than self-report to obtain valid data. This will help to reduce or eliminate common method variance or personal biases that may have impacted some of the relationships in the current study, as evidenced by some of the moderately large correlations.

Perhaps most importantly, all five of the healthy workplace satisfaction variables demonstrated significant predictive validity, providing support for the framework proposed by Grawitch et al. (2006). While employee involvement clearly led the way in predicting outcomes in the current study, the other four satisfaction variables contributed significantly in some of the analyses. Based on these results, it does seem that each provides some utility in understanding individual outcomes in the workplace.

The suppressor effects that were obtained in some of the analyses also signify some possible concerns in future research. Perhaps the most recurring theme was the suppressor effects that developed for recognition and work-life balance. For recognition, it may be that there is something about such programs that causes an increase in perceptions of work overload or competition in the workplace. For work-life balance, future research may want to explore possible difference due to sex (which was not done here due to a relatively small number of men in the sample), number of children, marital status, obligations outside of work, perceptions of role conflict/ambiguity, or other variables that are often associated with work-life balance issues (e.g., Frone, 2001).

It must also be noted that this study examined perceptions of the employer's healthy workplace practices, not the actual existence of specific programs. Although the results of the current study suggest that these perceptions may play a key role in a variety of individual outcomes in the workplace, clearly there is more that must be examined. For example, the results of the current study do not tell us if individuals that are satisfied with recognition are satisfied because (1) the organization provides countless programs and policies that meet their recognition needs, (2) the organization provides no recognition programs and policies but respondents are satisfied because they do not value recognition themselves, or (3) some other reason.

Limitations and Future Directions

Given that satisfaction with healthy workplace practices may be an important domain of study, there are several key directions required of future research. First, research should address outcomes other than those included in the current study. A variety of outcomes have been included in related research and, clearly, all of those outcomes could not be measured and reported here. Future research should focus on outcomes related to absenteeism, productivity, injury, and other performance and health outcomes. This research may utilize techniques other than self-report to provide a more extensive evaluation of the link between satisfaction with workplace practices and individual and organizational outcomes.

Second, although the current study examined the role of satisfaction with workplace practices as predictors of individual outcomes, the current study did not address the role of individual factors as predictors of satisfaction with workplace practices. What are the key determinants of satisfaction with each of the workplace factors? As already discussed, one possible set of factors may be demographics, which in this study clearly demonstrated significant relationships with several of the satisfaction variables. However, other demographics may be important determinants as well, some of which were

mentioned previously (e.g., number of children, marital status). In addition, it seems likely that there are variables related to individuals' expectations of their employers, the psychological contract, and other needs and desires that play a role in an individual's satisfaction with healthy workplace practices. For example, Reiss (2000) suggests that there is individual variation around different needs and desires of employees. Many of these desires (e.g., power, order, family, idealism, status) may be linked to the importance individuals place on the different healthy workplace practice areas.

Although the current study explored some possible directions in examining the healthy workplace from a comprehensive perspective, it has some limitations that should also be addressed in future research. First, this study was exploratory and correlational in nature. There is no way to know, for example, if satisfaction with healthy workplace practices leads to employee outcomes, or if employee feelings about the workplace lead to more positive perceptions of the organization's policies and practices.

Second, this research was conducted with employees from one particular organization in one particular context (i.e., a university setting). Future research should address the relationship among these variables in other settings to establish the generalizability of these results to contexts outside of a university (or at least outside of a knowledge management) setting. As mentioned previously, the university context is a setting that has some unique characteristics compared to other organizations. For example, university settings tend to be somewhat more democratic and involvement-focused than some industries, in that employees (both faculty and staff) work regularly in committees and teams that attempt to solve problems. Therefore, some benefits of employee involvement are expected in a university setting that may not be expected in other settings.

Finally, the tools used to evaluate satisfaction with healthy workplace practices need to be refined and explored to establish the further validity of these measures (e.g., construct validity). The measure was designed for the current study, building on some of the key issues presented by Grawitch et al. (2006) and others (e.g., Cohen et al., 1996; Kelloway & Day, 2005; Lawler, 1991). Yet, as with most measures, future research can help make refinements and maximize predictive utility. In addition, future research can go beyond single-source data, thus helping to overcome common method variance issues, although Spector (2006) has recently argued that common method variance may not be as problematic as previously believed.

Conclusion

The current study found general support for the hypotheses. Future research can use these results as a first step in fully evaluating what it means to develop

a healthy workplace, how to evaluate a healthy workplace, and how to identify key leverage points in developing a healthy workplace. As Grawitch et al. (2006) noted, the development of a healthy workplace is to some extent context-dependent, meaning that the development and implementation of specific programs, how those programs are viewed and utilized, and program effectiveness will be affected by the specific needs of employees that work for that organization and the specific constraints of the organization's culture, strategy, and environment. However, occupational health research needs to lead the way in beginning to provide some general results regarding the ways in which specific programs can affect employee health and well-being. It is most important to note that this study provides initial support for the proposition that employee involvement is an important component that must be integrated into new and existing organizational initiatives, as a way to ensure that they meet the needs of employees. Meeting the needs of employees is likely to result in greater benefits for employees and the organization itself.

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