

Safe & Healthy Workplaces: A Survey of the Types and Outcomes of Psychologically  
Healthy Workplace Initiatives Being Used in Nova Scotia

by

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Safe and Healthy Workplaces: A Survey of the Types and Outcomes of  
Psychologically Healthy Workplace Initiatives Being Used in Nova Scotia

by Krista D. Randell

Abstract

There has been an increased interest by researchers and organizations in developing “psychologically healthy workplaces” (PHWs). This is likely due to an enhanced understanding that in order to remain competitive, organizations must promote the well-being of their employees. The purpose of the present study was to describe the types and usage of PHW practices being used by organizations in Nova Scotia, and to link these practices to various organizational outcomes. A sample of 118 management personnel responded to an online survey about the practices used in their organization. A Principal Components Analysis revealed a 3-factor model of PHWs (i.e., communication/interpersonal treatment, employee control, and health and safety). PHW factors were predictive of financial/operational performance, employee attitudes, and employee withdrawal behaviours; even after controlling for several organizational variables. Moreover, some PHW factors (i.e., communication/interpersonal treatment and employee control) were found to have an indirect effect on financial/operational performance through employee attitudes.

December 21, 2009

## Safe and Healthy Workplaces: A Survey of the Types and Outcomes of Psychologically

## Healthy Workplace Initiatives Being Used in Nova Scotia

There has been an increased interest by both researchers and organizations in developing “psychologically healthy workplaces.”<sup>1</sup> This interest is likely fuelled by a better understanding that employees who suffer from poor well-being tend to cost the organization in terms of absenteeism, turnover, and decreased performance (e.g., Casio, 1991; Kuoppala, Lamminpaa & Husman, 2008), and that aspects of the work environment are able to *enhance* the well-being of employees (e.g., Kelloway & Barling, 1991; Grawitch, Tares, & Kohler, 2007; Quick, Quick, Nelson & Hurrell, 1997). Despite the increased interest in psychologically healthy workplaces, research on this construct is scant. Little is known on the extent to which organizations are actually implementing initiatives to increase the ‘healthiness’ of their workplace. Moreover, research linking healthy workplaces to organizational outcomes has utilized a limited number of PHW aspects (i.e., primarily core job characteristics; e.g., task autonomy, task feedback, skill variety, etc), as well as a limited number of outcome variables. The present study aims to add to the small body of healthy workplace literature by using a comprehensive PHW definition to: (1) identify the types and usage of healthy workplace initiatives that are being implemented by a variety of workplaces in the province of Nova Scotia, and (2) link components of a psychologically healthy workplace to various organizational outcomes.

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<sup>1</sup> For the purposes of the present study, the term “psychologically healthy workplace” will be used interchangeably with “healthy workplace.”

*Components of a “Healthy Workplace”*

Despite the increased interest in developing healthy workplaces, the small body of literature on this topic is fragmented and lacks a clear, consistent definition of a “psychologically healthy workplace.” Contributing to the lack of clarity and coherence is the fact that the research is spread across several different disciplines including ergonomics, industrial/organizational psychology, occupational medicine, and safety management (Smallwood, 2001). Some researchers and organizations consider three *broad* components of a healthy workplace to consist of (1) the physical environment, (2), behaviours and lifestyles of employees (health promotion), and (3), the psychosocial environment (e.g., Burton, 2004; Kelloway, Teed & Prosser, 2008).

*Physical Environment.* Originally, the term “healthy workplace” was used in the occupational health and safety domains to refer exclusively to interventions aimed at the physical environment. Healthy workplace initiatives in this context referred solely to those aimed at eliminating hazards in physical environment, e.g., poor air quality, exposure to asbestos, noise, poor ergonomic designs, machine safety, electrical safety, falls (Stokols, Pelletier, & Fielding, 1996). Although there have been substantial reductions in the numbers of workplace deaths and injuries throughout the 20<sup>th</sup> century, data indicate that occupational accidents and deaths are still occurring at an alarming rate (Stout & Linn, 2002). According to the Association of Worker’s Compensation Boards of Canada (AWCBC; 2009), over 1000 Canadians die on the job each year, and almost 318,000 workers lose work time because of a work-related injury. Although the physical environment still plays an important role in ensuring the workplace is safe and healthy, it

is no longer the sole attribute considered when referring to the development of a “healthy workplace.”

*Health Promotion.* In addition to the physical environment, the term “healthy workplace” is also widely used in the literature to refer to the presence of health promotion programs, i.e., programs that focus on employees’ behaviours and lifestyles and that aid them in making healthy choices (Grawitch, et al., 2007). Although the health-promotion literature focuses primarily on smoking cessation programs, it also includes health initiatives such as nutrition, weight loss, and stress management (Griffiths & Munir, 2004). Many recent articles that use the term “healthy workplace” still refer solely to an organization’s presence of health promotion programs (e.g., Cooper & Patterson, 2008; Lloyd & Foster, 2006).

Data clearly indicate the cost of unhealthy employee lifestyles to employers. It is estimated that every smoker in Canada costs their employer approximately \$3400 every year in as a result of decreased productivity and absenteeism, and increased insurance claims (Conference Board of Canada, 2006). Research also shows that health promotion programs are able to reduce employee health risks, and thus the costs of unhealthy employees; proving to provide a good return of investment (e.g., Bertera, 1990; Mills, Kessler, Cooper & Sullivan, 2006). Despite the positive effects of health promotion programs, critics argue that in focusing solely on the behaviours of employees, such programs take a “blame the employees approach,” ignoring the actions of employers (Burton, 2004; Griffiths & Munir, 2004).

*Psychosocial Environment.* Although both the physical environment and employee behaviors *are* important components of enhancing the health and safety of

employees, researchers and organizations are becoming increasingly aware that there are other contributing factors to an organization's level of "healthiness." Specifically, researchers have linked aspects of the work environment (in addition to the physical environment factors) to the health and well-being of employees, as well as to the successfulness of the organization. These factors are generically known as *psychosocial* factors, or part of a psychosocial work environment (e.g., Kelloway, Francis & Montgomery, 2005). Negative aspects of the psychosocial environment can be defined as "job stressors" (Hurrell, Nelson, & Simmons, 1998; Kelloway & Day, 2005a), or "job demands," (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Although not all "stressors" will affect all individuals in the same manner (e.g., Lazarus & Folkman, 1984), research has identified several common categories of workplace stressors (e.g., Sauter, Murphy, & Hurrell, 1990), including workload, role stressors (e.g., conflict, ambiguity), career concerns, work scheduling, interpersonal relations, and job content/job control. Other organizational factors that have been linked to negative employee health outcomes include workplace injustice (Francis & Barling, 2005) and leadership (Offerman & Hellmann, 1996). In 2000, the Conference Board of Canada published a report that recommended organizations to consider psychosocial organizational factors in their programs and policies (Conference Board of Canada, 2000).

### *Costs of Job Stress*

Although the costs associated with employee accidents, injuries, and unhealthy employees are relatively well understood by employers, the severity of employee job stress is perhaps a little less recognized (Burton, 2004). In reality, however, there is a vast body of literature linking work features (i.e., job stressors) to negative consequences for

both employees and organizations (e.g., Cooper, 1994; Podsakoff, LePine, & LePine, 2007). These consequences of job stress are generally organized into four interrelated categories: psychological, physical, behavioral and organizational (Kelloway & Day, 2005a; Kelloway, Teed, & Kelley, 2008).

*Psychological.* Psychological outcomes related to unhealthy workplaces include negative affective reactions such as depression, anxiety, and impaired mood (e.g., Baba, Jamal, & Tourigny, 1998; Wang & Patten, 2001), as well as cognitive disturbances such as memory lapses, and difficulty in concentrating and making decisions (Broadbent, Cooper, FitzGerald & Parkes, 1982). The latter form of impairment has also been linked with safety incidents (Duffy & McGoldrick, 1990).

*Physical.* Physical outcomes of job stress and unhealthy workplaces range from minor symptoms such as digestive problems and sleep disturbances, to more serious issues such as elevated blood pressure (Barling & Kelloway, 1996), cardiovascular diseases (Theorell & Karasek, 1996), and hypertension (Schwartz, Pickering, & Landsbergis, 1996). Job stress has also been found to be associated with an increased risk of infectious disease (Schaubroeck, Jones, & Xie, 2001), musculoskeletal complaints (Carayon, Smith, & Haims, 1999), as well as a variety of other medical symptoms (Quick, et al., 1997).

*Behavioural.* Job stress has been associated with a variety of rather serious behavioural reactions including increases in smoking (Conway, Vickers, Ward, & Rahe, 1981), alcohol consumption (e.g., Frone, 1999), violence, and spousal abuse (Gershon, Barocas, Canton, Li & Vlahov, 2009). Job stress can also impair other health-related

behaviours (e.g., physical exercise), which may intensify the effects of job stress (Payne, Jones & Harris, 2002).

*Organizational.* Job stress is equally as costly for organizations as it is for employees. Some of the most common negative organizational outcomes of employee stress, burnout, and poor physical and mental health include increased turnover, absenteeism, rate of accidents and decreased productivity (Cartwright & Cooper, 1997; Quick, et al., 1997). Work stress is estimated to cost the United States industry \$300 billion a year as a result of these outcomes (Rosch, 2001).

#### *The Workplace as a Health Resource*

When examining the relationship between organizational factors and employee well-being, most of the constructs and scales have focused on the negative side, reflecting situations of *decreased* well-being caused by the workplace (Jex & Beehr, 1991). However, influenced by principles of positive psychology, the psychologically healthy workplace construct has recently evolved again, as researchers have noted that various organizational factors can help employees deal with various job and life stressors, and can actually *enhance* the well-being of employees (e.g., Kelloway & Day, 2005a; Luthans & Youssef, 2007; Parker, Turner, & Griffin, 2003). Work can be viewed not only as a source of income, but also as an important aspect in defining an individual's identity, self-esteem, and psychological well-being (Warr, 1987). In fact, for many individuals, work can be considered the central defining feature of one's life (Quick, Murphy, Hurrell, & Orman, 1992).

Recently, Luthans and his colleagues (Luthans, 2002; Luthans, Avolio, Avey & Norman, 2007; Luthans & Youssef, 2007) described the concept of *positive*

*organizational behaviour*, which they defined as a “newly emerging focus on a positive approach to developing and managing resources in today’s workplace” (Luthans et al., 2007, p. 542). The concept emphasizes the importance of positive organizational practices in enhancing well-being. This research identifies employee well-being factors of hope, resilience, optimism and self-efficacy that can be influenced by the workplace. Similar to positive organizational behaviour, *positive organizational scholarship* also applies the concept of positive psychology to the workplace (Cameron & Caza, 2004; Cameron, Dutton & Quinn, 2003). Positive organizational psychology studies what is “positive, flourishing and life-giving” at the organizational level, e.g., resilience, resistance, and vitality (Cameron & Caza, 2004, p. 731).

Although we have come a long way in understanding how to combat workplace disease and illness, we know much less about the work contexts that can foster positive health, well-being and functioning. Warr (1987) was one of the first researchers to link organizational factors with positive ‘job-related mental health’. Specifically, he identified nine organizational features important to mental health: externally generated goals, task variety, environmental clarity, opportunity for control, opportunity for skill use, opportunity for interpersonal contact, availability of money, physical security, and valued social position. Moreover, Luthans et al. (2007) identified practices that capitalize on employees’ talents (e.g., clear and aligned goals and expectations, social support and recognition, and opportunities for growth, development, and self-actualization), as those that can substantially influence employee well-being. Other organizational factors that have been found to be associated with employee well-being include quality leadership, (Arnold, Turner, Barling, Kelloway, & McKee, 2007) and employee involvement in

decision making, e.g., self-managed work teams, job autonomy, etc. (Cohen, Ledford, & Spreitzer; 1996).

The implication of this positive psychology influence on the workplace is that it is not solely the absence of job stressors that should define a psychologically healthy workplace, but also the presence of certain organizational resources that enhance employee well-being (Kelloway & Day, 2005a). Mental health in this context is no longer defined as solely the absence of illness, but also as the presence of well-being. Ultimately, definitions of psychologically healthy workplaces should include factors beyond the prevention of workplace stressors that come together to create a healthy workplace

#### *The Benefits of Healthy Workplaces*

As a result of the recent reconceptualization of psychologically healthy workplaces, we must examine not only the *costs* of unhealthy workplaces, but also the *benefits* of healthy workplaces. While the concept of a psychologically healthy workplace is relatively new, with scant empirical research investigating the positive outcomes of workplace factors, there is *some* evidence to suggest that aspects of the workplace can influence employee mental well-being, as well as the overall functioning of organizations.

*Employee health.* Researchers are slowly beginning to link positive human conditions affected by organizational features (e.g., self-efficacy, engagement, etc.) to positive health outcomes for employees. Kelloway and Barling (1991) found that although job characteristics had their primary impact on measures of job-related affective well being, these context specific measures of well-being were in turn predictive of

context-free mental health (overall mental health). That is, job characteristics have the ability to positively influence the *general* well-being of employees through work-related well-being. A recent study found the presence of psychologically healthy workplace practices to be significantly positively correlated with ratings of both job-related affective well-being and general mental health (Randell & Tatariewicz, 2008). Moreover, in addition to mental health, there is also some evidence to indicate that aspects of the work environment can be associated with enhanced physical health for employees (e.g., Karlin, Brondolo, & Schwartz, 2003; Wager, Feldman, & Hussey, 2003).

*Organizational Turnover.* Enhancing the well-being of employees can also have beneficial effects for organizations. There is evidence to suggest a link between promoting employee mental health and employee retention. Page and Vella-Brodrick (2009) argued that employees' intention to turnover is as much related to the absence of work-related positive affect (i.e., languishing) as to the presence of work-related negative affect or ill health. Indeed, Hart and Cooper (2001) found that positive job-affect was negatively related to turnover intentions, whereas employee negative affect was *not* related to turnover intentions. Other researchers have also found significant negative correlations between employee positive well-being and turnover intentions (e.g., Judge, 1993; Wright & Bonett, 2007). Thus, in enhancing the well-being of employees, positive organizational practices could act as a buffer against turnover.

*Organizational Recruitment.* In addition to retention, promoting the positive well-being of employees may also aid in recruitment efforts. Although there do not appear to be any empirical studies on the link between recruitment and PHWs, survey research indicates that many employees *do* select employers based on the availability of

organizational resources (e.g., Galinsky, Bond, & Friedman, 1996). Employees are more often willing to trade off higher salaries for factors such as flexibility, autonomy, and job characteristics that let them balance work and home lives (Casio, 2003). Galinsky et al., (1996) found that 59% of parents indicated that the presence of ‘family-friendly’ policies was one of the main reasons behind choosing their present job. Moreover, the National Research Council (1999) found the two highest ranked job characteristics were a sense of accomplishment, and a chance for advancement. These job factors were considered even more important than “high income”, which was ranked as third out of the five factors (National Research Council, 1999). Taken together, the research suggests that the availability of PHW initiatives may be something that applicants find attractive when considering employment opportunities. Organizations could thus potentially utilize these qualities to attract skilled employees.

#### *Comprehensive Healthy Workplace Models*

Researchers have now begun to compile the previously discussed antecedents, consequences, and benefits of both healthy and unhealthy workplaces, and a small body of “psychologically healthy workplace” literature has emerged (e.g., APA, 2009; Grawitch et al., 2007; Health Canada, 2007; Kelloway & Day, 2005a; Kelloway & Day 2005b). These researchers note that definitions of “healthy workplaces” must be comprehensive. Specifically, it is important for psychologically healthy workplace definitions to include both physical and psychosocial factors as *predictors*, as well as psychological, physical, behavioural, and organizational outcomes as *consequences*. Moreover, a “healthy” workplace is no longer one that avoids being unhealthy, but one that optimizes health while also maximizing organizational productivity. The National

Quality Institute (NQI) in Canada define healthy workplaces in terms of “holistic workplace health,” which includes organizational support on all physical, social, personal and developmental levels in an effort to “improve overall employee quality of life both within and outside the workplace” (Health Canada, 2007). NQI asserts that the most effective healthy workplace initiatives are comprehensive and aim to improve *all* the elements of a workplace.

*PHW Definition Used in the Present Study*

Based on existing definitions and models, I will define the term ‘psychologically healthy workplaces’ as workplaces that are dedicated to the physical and psychological health of their employees (as well as their clients and customers), while simultaneously incorporating solid business practices to remain as an efficient and productive business entity. PHWs use *PHW practices*, which will be defined as any practices, programs, policies, or design of work that promote or enhance positive employee health and well being, or that remediate or prevent employee stress or other negative health and well-being. Furthermore, I also distinguish between PHW practices, and the broader PHW *factors* of which the specific practices comprise. For example, employee involvement is a PHW factor made up of an infinite number of specific practices such as employee surveys, suggestion boxes, participative decision making, or self-managed work teams. It is important to note that how employee involvement is promoted in one workplace may be completely different from the initiatives utilized to encourage employee involvement in another organization. Many researchers have noted that there is no particular “one-size-fits-all” approach to creating a PHW (e.g., Grawitch, Ledford, Ballard & Barber, 2009).

*Psychologically Healthy Workplace Factors*

The APA factor model is perhaps the most commonly promoted model of PHWs. APA suggests that organizations can become “healthy” by focusing on *five* broad PHW factors, which include: (1) employee involvement, (2) work-life balance, (3) employee growth and development, (4) employee health and safety, and (5) employee recognition (APA, 2009). This APA model forms the basis of the model utilized in the present study. Specially, all five APA categories of PHWs were used in the present study. The “health and safety” category, however, was divided into two separate factors (i.e., employee health, and employee safety) because an organization may have safety practices in place due to workplace regulations, but may not necessarily have health promotion practices. In a recent factor analysis, employee health and safety *did* in fact emerge as two separate factors (Randell & Tatarkiewicz, 2008). In addition to this modification, one additional factor was added to the APA PHW categories: culture of support, respect, and fairness. In sum, the present study is based around 7 broad PHW factors, comprised of an infinite number of PHW practices. The PHW factors include: (1) employee involvement, (2) work-life balance, (3) employee growth and development, (4) employee safety, (5) employee health, (6) employee recognition, and (7), culture of support, respect and fairness. Each of these seven factors is discussed in more detail below.

*Employee Involvement.* Employee involvement refers to initiatives aimed at enhancing employees’ involvement in decision making, job autonomy, and empowerment (APA, 2009; Grawitch et al., 2007). Employee involvement initiatives can range from simple practices, such as open-door policies, employee feedback, and communication of information about the organization, to elaborate policies, such as self-

managed work teams, joint employee-management committees, or employee ownership (Grawitch et al., 2009). There is a great deal of evidence in the management and general organizational literature indicating that forms of employee involvement are associated with important outcomes for employees. Perceived job control, for instance, has been found to be associated with physical health indices, such as decreased blood pressure and heart rate (Stephens, 2001), as well as psychosocial health and attitudes including increased job satisfaction, life satisfaction, well-being (Day & Jreige, 2002) and overall health (Dwyer & Ganster, 2001). Gibson, Porath, Benson, and Lawler (2007) found that various employee involvement practices were predictive of firm performance, indicating that employee involvement can be beneficial for organizations as well as employees.

Researchers have noted that despite receiving attention in the management literature, employee involvement is rarely studied in a healthy workplace context (Grawitch et al., 2009). This omission is critical: some researchers emphasize that employee involvement may be the most important type of practice in creating a healthy workplace (Grawitch et al., 2007). Grawitch et al. (2007) claimed that employee involvement practices play a pivotal role in shaping employees' perceptions of *other* forms of PHW practices, and found evidence to suggest that other types of practices may play a less influential role in predicting employee outcomes than employee involvement. Given the potential for employee involvement to benefit other healthy workplace programs, this concept certainly needs to be better integrated in the PHW research.

*Work-life balance.* The proportion of women entering the workforce is continuing to increase, as is the percentage of dual-career couples (Kinnunen, Geurts, & Mauno, 2004). Increasingly competitive business environments are placing further demands on

employees. This situation is contributing to a blurring of boundaries between work and family domains, and many employed individuals are struggling to achieve a balance between work and home-life (Bellavia & Frone, 2005). Research indicates that work-life conflict is associated with a number of negative outcomes for both employees *and* the organizations in which they are employed; including psychological and physical impairments (e.g., Frone, 2000; Frone, Russell, & Barnes, 1996), job and life dissatisfaction (e.g., Kossek & Ozeki, 1998), and work-withdrawal behaviours, e.g., absenteeism, lateness, daydreaming (e.g., Kirchmeyer & Cohen, 1999). Work-life balance policies (often called ‘family-friendly policies’ in the literature; Rosin & Korabik, 2002), are designed to aid employees in balancing their work and non-work lives. Examples of work-life balance initiatives include flex-time, telecommuting, or assistance with child or elder care (Perrewé, Treadway & Hall, 2003). Some researchers emphasize that in addition to adopting *formal* work-life balance initiatives, the *informal* role of the organization in aiding in the work-life balance of its employees is also important, e.g., supportive attitude of managers (Perrewé et al., 2003). Overall, survey research indicates that employees highly value work-life balance initiatives (e.g., Galinsky et al., 1996). However, although there have been some empirical studies on work-life balance policies (e.g., Dex & Smith, 2002; Saltzstein, Sting & Saltzstein, 2001; Wallace & Young, 2009), researchers note that findings have been mixed, and further empirical research on work-life balance initiatives is important (Perrewé et al., 2003).

*Growth and Development.* Industries have become more knowledge-based, which makes it important for employees to continuously learn and update their skills (Burke & Ng, 2006). Providing opportunities for employees to expand their knowledge, skills,

abilities, and experiences has also been suggested as a contributor to the well-being of employees (APA, 2009; Grawitch et al., 2007; Pfeffer, 1998). Employee growth and development initiatives can take the form of in-house or outside training opportunities, tuition reimbursement, opportunities for promotion or internal career advancement, or continuing education courses (APA, 2009). Some researchers suggest that providing such opportunities could signal to employees that they are valued by the organization, thus enhancing motivation (Keep, 1989). It has also been suggested that the effectiveness of employee growth and development initiatives is dependent on whether or not the organization provides the opportunity for employees to *use* the obtained skills or knowledge in the workplace (Warr, 1987). Although the effects of specific growth and development practices, e.g., employee training programs (Bartel, 1994; Bartel, 2000) have been investigated in the management literature, the outcomes of growth and development initiatives are rarely acknowledged in a healthy workplace context. In one of the few healthy workplace studies to study the outcomes of employee growth and development initiatives, Browne (2000) found training and internal career opportunities to predict employee satisfaction and organizational effectiveness.

*Employee Safety.* Employee safety refers to initiatives aimed at enhancing and protecting the well-being of employees through the physical environment, (APA, 2009) and represents the original concept of “healthy workplaces.” Employee safety practices can be either mandatory or voluntary (Robson et al., 2007). Mandatory safety initiatives arise as a result of government legislation, and are enforced through inspections, fines, etc., while voluntary initiatives derive from the individual efforts of particular organizations or employer groups, and are *not* related to regulatory requirement. Despite

the fact that employee safety is perhaps the most recognized and utilized form of healthy workplace practice, workplace accidents and injuries are still occurring at startling rates (Stout & Linn, 2002). Clearly, more evaluative studies of the effectiveness of various interventions aimed at enhancing the safety of employees through the physical environment, would prove useful.

*Employee Health.* Employee health practices refer to initiatives aimed at preventing and treating employee health risks and problems, e.g., health screenings, stress management training, employee assistance programs (APA, 2009; Grawitch et al., 2007), as well as encouraging employee *positive* health through supporting employee healthy lifestyle and behaviour choices, e.g., nutrition classes, access to fitness facilities, wellness programs (Griffiths & Munir, 2003). Although some studies have found health promotion programs to have significantly positive effects on employee and organizational outcomes (e.g., Holzbach et al., 1990), and the general consensus on such appears to be optimistic (Heaney & Goetzel, 1997), researchers have noted that many studies evaluating the effectiveness of workplace health programs have methodological flaws and lack rigor (Griffiths & Munir, 2003; Stokols et al., 1996). Overall, future studies investigating the effectiveness of various health promotion practices in enhancing employee and organizational outcomes would be useful.

*Culture of Support Respect and Fairness.* Kelloway and Day (2005a) have added a factor of “culture of support, respect and fairness” as an additional important component of a PHW. This dimension is based on practices and initiatives aimed at providing a supportive, respecting and fair workplace. Initiatives aimed to enhance a culture of support, respect and fairness within an organization could take the form of

encouraging respectful relationships with and among employees, written policies on workplace respect, sensitivity or diversity training for managers, or simply using fair procedures to make workplace decisions. APA (2009) stresses the key role that communication plays in the development of a healthy workplace, and in the success of promoting each healthy workplace component. Communication would be particularly important for developing a culture of support, respect and fairness, as it serves as the very foundation of these aspects, and the channel through which support, respect and fairness are reinforced to employees.

There are isolated bodies of research on various constructs that fall within the dimension of 'support, respect and fairness', and which suggest the importance of this component towards developing a healthy workplace. Research on procedural justice, i.e., perceptions that the procedures used to determine outcomes within a workplace are fair (Colquitt, Conlon, Wesson, Porter, & Ng; 2001), have found strong positive relationships between this construct and job satisfaction, organizational commitment, and trust, and a negative relationship with employee stress (Elovainio, Kivimaki, & Helkama; 2001). Moreover, research on employee mistreatment and supportive work environments indicate that employees who feel supported at work experience fewer physical and mental health ailments than those who do not feel supported (International Centre for Health and Society, 2004), and also indicate lower turnover intentions (Rhoades & Eisenberger, 2002). Interactions with individuals who reinforce support and respect are an important part of a PHW (Harlos & Axelrod, 2005), and thus supervisors and managers should ensure their interactions with employees are characterized by politeness, dignity, and respect. Overall, it is important for organizations to provide employees with the support,

resources and respect that is needed to function productively and effectively (Harlos & Axelrod, 2008). More research on how particular aspects of support, respect and fairness can enhance the healthiness of a workplace would likely prove very useful.

*Employee Recognition.* Researchers have acknowledged that recognizing the contributions of employees may be an important component of developing a PHW (e.g., APA, 2009; NQI, 2000; Grawitch et al., 2007). In addition to the obvious monetary recognition (e.g., fair monetary compensation, performance-based bonuses and pay increases), there are other ways that employers can recognize the contributions of employees. Employees can be recognized through formal means, such as through recognition ceremonies, employee awards, or organizational documents (e.g., memos, newsletters, etc.), or alternatively, through more informal, day-to-day types of recognition practices such as verbal praise, or a simple thank-you note (APA, 2009). While there appears to be no empirical research on this latter form of recognition, some researchers suggest that informal recognition may be particularly important for validating feelings of sincere appreciation (Saunderson, 2004; Nelson, 1995).

Overall, survey findings indicate that employees highly value recognition within their workplaces, particularly personalized recognition (Luthans, 2000; Lovio-Geroge, 1992). Moreover, studies indicate that employees who feel appropriately rewarded for their efforts display less signs of stress, emotional exhaustion and various physical symptoms (e.g., back pain), than those who feel underrewarded (e.g., de Jonge, Bosma, Peter, & Siegrist, 2000; Niedhammer, Tek, Starke, & Siegrist, 2004). In one of the few empirical studies to examine *positive* outcomes of providing employee recognition, Browne (2000) found employee recognition to emerge as a significant predictor of

employee satisfaction, organizational effectiveness, and decreased employee stress. Grawitch et al., (2007), however, failed to find a predictive relationship between employee recognition and positive employee outcomes, instead finding a *negative* relationship between recognition and employee well-being. Overall, the inconsistency of results highlights the need for more empirical research on employee recognition practices.

### *Summary and Hypotheses*

Despite the evidence indicating the costs of an unhealthy workplace and the benefits of a PHW, the extent to which employers are actually creating PHWs by engaging in PHW practices is unknown. There have been few studies measuring the tendency for organizations to develop PHWs, or the common types of practices that are being implemented to achieve this goal. Moreover, those healthy workplace surveys that *do* exist tend to assess a limited number and type of PHW practices and factors. Many measure only health promotion practices, for instance, (e.g., Fielding & Piserchia, 1989; McMahan, Wells, Stokols, Phillips, & Clitheroe, 2001), or focus on only one PHW factor (e.g., Gittleman, Horrigan, & Joyce, 1998, measured only six specific healthy workplace practices, all falling under the broader PHW factor of employee involvement). There do not appear to be any existing healthy workplace surveys which measure a more comprehensive array of PHW practices. Researchers have called for studies which include a broader array of practices (e.g., Parker & Wall, 1998).

Furthermore, research on PHW practices within *small* organizations is particularly lacking. Researchers have noted that little is known about the particular stressors faced by employees of small businesses, or the prevalence and types of PHW initiatives

implemented by these organizations (e.g., Gittleman, et al., 1998; Smallman, 2001; Stokols, McMahan, & Phillips; 2001). Many national surveys for instance, omit organizations with less than 50 employees (e.g., Fielding & Piserchia, 1989; Osterman 1994). This omission is particularly notable when considering that Statistic Canada's Business Register indicates that organizations with less than 20 employees accounted for 87% of the total Canadian employer businesses in 2008, whereas organizations with less than ten and five employees constituted 75 and 55 percent of the total, respectively (Industry Canada, 2009). Ultimately, the majority of businesses in Canada are quite small.

Moreover, it is also important to ensure that the types of healthy workplace measures utilized are suitable for smaller organizations. The types of work-life balance initiatives implemented by large organizations, for instance, are likely different than the forms of work-life balance practices that exist in smaller organizations. Some researchers have noted that smaller organizations may implicitly follow many healthy workplace procedures (e.g., allowing employees to be involved in decision making), but not have formal healthy workplace policies in place (Gittleman et al., 1998). A check-list of elaborate healthy workplace practices, alone, would thus *not* enhance an understanding of the types of healthy workplace initiatives utilized in small organizations. The present study aims to measure PHW practices relevant to both large and small organizations. In addition to specific, formal practices, the study also inquires about the extent that various *general* healthy workplace initiatives and values are present within the organizations. Moreover, the survey includes open-ended questions on existing healthy workplace practices, in an effort to gain even further insight into the types of practices offered. In

sum, the first goal of the present study is to identify the types and popularity of PHW practices that are being used by a variety of organizations in the province of Nova Scotia. I will be using a comprehensive definition of a psychologically healthy workplace in order to achieve this goal. Moreover, although the majority of output for the first study goal will be descriptive, I also aim to investigate any effects of organizational size, as well as industry type, with respect to the implementation of healthy workplace practices.

*Organization Size.* The relationship between the size of an organization and the prevalence of healthy workplace practices is unknown. However, some researchers suggest that smaller organizations would be *less* likely than larger organizations to offer healthy workplace programs, which they attribute to a lack of staff, facilities and financial resources (e.g., Gittleman et al., 1998; Stokols, Pelletier, & Fielding, 1996). However, it could also be the case that smaller organizations, although less likely to implement formal healthy workplace practices and programs, could more easily *implicitly* promote the components of a psychologically healthy workplace, as a result of greater flexibility, and closer contact with employees (Gittleman et al., 1998). Thus, smaller organizations may have an advantage over larger organizations with respect to informally promoting PHW components. Specifically, it was hypothesized that:

*Hypothesis 1a:* Smaller organizations will offer fewer formal healthy workplace practices than larger organizations.

*Hypothesis 1b:* Smaller organizations will report higher ratings of general PHW components than larger organizations.

*Industry Type.* Similarly, there does not appear to be any research on differences in healthy workplace practices with respect to industry type. It seems likely, however,

that some industry types, particularly, high-risk-industries (e.g., construction, mining and oil extraction, etc.) would require more healthy workplace practices in place than non high-risk industries. Specifically, health and safety practices would be particularly important for high-risk industries, and may be less crucial for industries where the physical health and safety of employees are not as compromised (e.g., educational services, finance and insurance, etc.). With respect to PHW practices and industry type, it is hypothesized that:

*Hypothesis 2:* Organizations operating in high-risk industries will offer more health and safety practices than organizations in low-risk industries.

Additionally, having a clear understanding of the relationship between aspects of psychologically healthy workplaces and organizational outcomes is an important step towards implementing initiatives to improve the well-being of employee and organizations. Although there have been an increasing number of studies investigating the outcomes of PHWs, the types of PHW initiatives often included in such studies, as well as the types of outcome variables, are limited. Researchers have called for studies that consider a broader range of PHW factors (i.e., expanding away from a primary focus on safety, health promotion, and core job characteristics); as well as a broader range of outcome variables (i.e., an inclusion of more organizational indices such as performance and productivity; Parker & Wall, 1998).

In order to make accurate statements about the linkage between PHWs and employee and organizational outcomes, more empirical research is necessary. Thus, the second goal of the present study is to examine the relationship between PHW factors (using a comprehensive definition), and three organizational outcomes, including:

financial/operational performance, positive employee attitudes, and employee withdrawal. Using the 7-factor PHW model, the present study aims to determine if the seven broad factors are able to influence organizational performance, even after controlling for several organizational variables (i.e., organizational size, percentage of unionized employees, whether the organization is part of a high-risk industry, and whether the organization is profit or not-for profit). Moreover, the study will also investigate whether the different PHW factors are differentially related to the three outcome variables. With respect to linking PHW factors to organizational outcomes, it is hypothesized that:

*Hypothesis 3:* The psychologically healthy workplace factors will be positively related to (a) financial/operational performance, and (b) positive employee attitudes, and negatively related to (c) employee withdrawal behaviours.

*Hypothesis 4:* The psychologically healthy workplace factors will account for additional variance in (a) financial/operational outcomes, (b) employee attitudes, and (c) employee withdrawal behaviours, after controlling for total number of employees, percentage of unionized employees, whether the organization is part of a high-risk industry, and whether the organization is profit or not-for profit.

Finally, there has also been minimal research on the *means* by which components of a PHW can influence organizational outcomes. Thus, the present study will also test a mediation model. Specifically, I will test employee attitudes as a mediator of the relationship between PHW components and financial/operational performance, as well as between PHW components and employee withdrawal behaviours. Although employee attitudes are also being used as an outcome variable in the previous hypotheses, there is

evidence to suggest that employee attitudes are a precursor of both performance (e.g., Koys, 2001) and withdrawal behaviour (e.g., Mobley, Horner, & Holingsworth, 1978; Williams & Hazer, 1986), and thus, its use as a mediator of the PHW – organizational outcome relationship was deemed feasible. In sum, it is hypothesized that:

*Hypothesis 5a:* The relationship between PHW components and financial/operational performance will be mediated by positive employee attitudes.

*Hypothesis 5b:* The relationship between PHW components and employee withdrawal behaviours will be mediated by positive employee attitudes.

## Method

### *Participants*

A total of 118 organizations participated in the study. Of the 118 respondents, 68 were recruited through the Halifax Chamber of Commerce, 13 were recruited through other Chambers of Commerce in the province, and 31 were recruited by the researcher through a convenience sample. With respect to the position of the respondent, 38.1% described themselves as an upper-level manager, 23% as an owner, 16.8% as a middle-level manager, and 15.9% as a human resources personnel. An additional 6.2% occupied an alternative position, but still considered themselves to be management personnel with a good overview of the organizations programs in place (e.g., CEO, director, health and safety coordinator, co-owner, etc.). A multivariate analysis of variance was used to test for any differences between those who started the survey and those who were not, and revealed no notable differences.

The represented organizations were located within various regions of Nova Scotia, and were of a varying size and nature. The organizations represented a vast array

of industry types, with the most common categories including: professional, scientific, and technical services (14.9%), and educational services (11.4%).<sup>2</sup> The majority of organizations were described as profit-oriented (68.5%), with 31.5% reporting to be not-for-profit. The number of full-time employees ranged from 0 to 20,000, with a mean of 378.79, and a median of 14; the number of part-time employees ranged from 0 to 2,000, with a mean of 46.58, and a median of 2. The total number of employees ranged from 1 to 20,000, with a mean of 423, and a median of 23.<sup>3</sup>

### *Measures*

Organizational representatives responded to an online survey that consisted of the following measures:

*Organizational Descriptors.* Participants were asked several organizational questions including: the number of part-time and full-time employees employed by the organization, the nature of the organization (e.g., profit vs. non-profit; industry type), the percentage of employees that are unionized, their position within the organization, and whether or not the organization is part of a “high-risk” occupation or industry. In order to link responses to a second phase of the study, participants were also asked to provide the name of their organization. All participants were assured that a code-system would be used upon data entry, and organizational identify would not be revealed in any communication of the results.

*Specific Healthy Workplace Practices.* Psychologically healthy workplace practices were assessed using a “check-list” of 77 specific healthy workplace initiatives (e.g., employee recognition awards, tuition reimbursements, on-site wellness centres, etc.;

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<sup>2</sup> The most common response for this item was “other” (21.1%)

<sup>3</sup> The presence of 5 outliers inflated the mean of this variable

see Appendix A). Respondents were asked to indicate which of the listed practices/programs were utilized in their organization. This scale was divided into the PHW factors previously discussed, with the exception of the culture of support, respect and fairness factor. It was perceived that this was more of an informal factor; not based on specific, formal practices. Respondents were also asked to rate the *effectiveness* of initiatives currently being utilized in their organization for each factor. Responses to these latter items were made using a 4-point Likert type scale (1 = very ineffective; 4 = very ineffective). Each factor also included two open-ended questions, which asked respondents to indicate any other types of initiatives that were utilized in their organization, and any initiatives they did not currently offer, but would want to offer in the future. The internal reliability for this scale was high ( $\alpha = .93$ ).

*General Healthiness.* The general 'healthiness' of organizations was assessed using 44 items pertaining to the existence of general health workplace initiatives, practices, and culture, within the workplace (see Appendix B). The measure asked participants to indicate the extent to which they agreed with a variety of *general* statements regarding healthy workplace practices and culture within their organization (e.g., employees are provided with opportunities to gain new knowledge and skills; employees are encouraged to participate in decision-making; overall, the organization encourages work-life balance, etc.). Responses to these items were made using a five-point Likert-type scale (1 = strongly disagree; 5 = strongly agree). This measure was created for the present study and was based on various existing psychologically healthy workplace definitions in the literature (e.g., APA, 2009; Kelloway & Day, 2005; Randell & Tatarkiewicz, 2008). The scale measured seven broad healthy workplace categories

including: (1) employee involvement, (2) employee growth and development, (3) employee work-life balance, (4) employee recognition, (5) employee safety, (6) employee health, and (7) culture of support, respect and fairness. A Principal Components Analysis was conducted on these items (see Results section).

*Financial/Operational Performance.* Organizational financial/operational performance was assessed using 9 items from the Firm Performance Questionnaire (Carroll, 2009). Specifically, respondents were asked to rate 4 items which assessed operating performance (e.g., operating efficiency, meeting target times, service quality, etc.), and 5 items which assessed financial performance (sales growth; profitability, etc.). Participants used a five-point Likert-type scale to respond to these items ( $1$  = very low;  $5$  = very high). A “not applicable” option was added to the financial outcome items, because it was perceived some items may not be appropriate for all types of organizations (e.g., not-for-profit organizations). Internal reliability for this scale in the present study was good ( $\alpha = .79$ ).

*Employee Attitudes.* Employee attitudes were assessed using three items from the Firm Performance Questionnaire. Specifically, respondents were asked to rate levels of employee commitment, employee satisfaction and employee morale within their organization. Responses to these items were made using a five-point Likert type scale ( $1$  = very low;  $5$  = very high). The internal reliability for this scale was high ( $\alpha = .88$ ).

*Employee Withdrawal Behaviours.* Employee withdrawal behaviours were assessed using two items from the Firm Performance Questionnaire. The question asked respondents to rate the level of employee turnover and absenteeism within their organization. Responses to these items were made using a five-point Likert-type scale ( $1$

= very low; 5 = very high). The correlation coefficient between these two items of this scale was large ( $r = .58, p < .001$ ).

### *Procedure*

Participants received an email which took them directly to the online questionnaire hosted by Survey Monkey ([www.surveymonkey.com](http://www.surveymonkey.com)). Participants who were recruited through the Chambers of Commerce received the email from a representative of their Chamber of Commerce, and researcher-recruited participants received the email directly from the researcher. The same email was received by all participants regardless of how they were recruited. Participants completed all the scales online. Prior to completing the survey the participants were provided with a description of the study and consent was obtained online. Participants were free to withdraw participation at any time without any penalty. Although participants' were asked to identify their organization, complete confidentiality was assured and a coding system was used upon data entry. Organizations' identity was kept separate from the rest of the survey data, and the data codes were used in the data set. Participants were entered into a draw for one of several prizes including an iPod, \$75 gift certificates, as well as tickets to an upcoming Psychologically Healthy Workplace Conference. The study abided by current ethical standards and was approved by the Saint Mary's Research Ethics Board (REB Certificate # 09-127; see Appendix C).

### Results

Prior to the analyses, data were screened for outliers, data entry errors, non-random missing data, and violations of assumptions, including heterogeneity of variance and non-normality. All statistical analyses were performed using SPSS version 15.0 for

Windows. Three extreme scores were detected in the distribution of total number of employees. Preliminary analyses suggested that these cases had standardized residual values well above the recommended cut-off of 3.3 (Tabacknick & Fidell, 2007), and the Mahalanobis distance value for the cases vastly exceeded the critical chi-square value. Given the fact that multiple regression is very sensitive to outliers, and because the sample size of the present study was relatively small, it was perceived that these cases could influence the results. Therefore, three cases were removed from any regression analyses involving this variable. Missing data were treated using pairwise deletion, resulting in the removal from the analysis of any case missing a value on any of the variables included in the analysis.

#### *Factor Structure of PHW Scale*

Prior to conducting any analyses, a Principal components analysis with oblimin rotation was conducted to determine if the proposed 7-factor PHW model could be supported. This initial analysis did not reveal any clear factor structure. Catell's scree test (Catell, 1966), suggested that both a 1-or-3 factor structure were feasible. The 1-factor model accounted for 37.8% of the variance, with item loadings ranging from .18 to .81. The 3-factor model accounted for 51.8% of the variance. It was decided to retain three factors for further investigation. The pattern matrix for this analysis is displayed in Table 1.

After examining the pattern matrix for the 3-factor model, all complex items, and items not loading onto their respective factors were removed. Specifically, the items that were removed included: three health items, two work-life balance items, two recognition items, three growth and development items, two involvement items, and finally, two

Table 1.

*Pattern matrix for original Principal components analysis (N = 116 ).<sup>4</sup>*

	Component		
	1	2	3
H1	.063	<i>.304</i>	-.285
H2	.145	.195	<b>-.417</b>
H3	<b>.357</b>	<b>.452</b>	-.139
H4	.144	<b>.755</b>	.270
H5	.283	<b>.520</b>	-.149
S1	-.067	<b>.768</b>	-.061
S2	-.132	<b>.783</b>	-.102
S3	-.076	<b>.739</b>	-.015
WLB1	<b>.668</b>	.156	-.071
WLB2	.236	<b>.325</b>	<b>-.326</b>
WLB3	<b>.516</b>	.124	-.184
WLB4	<b>.712</b>	-.144	-.123
WLB5	<b>.555</b>	<b>.334</b>	.084
WLB6	<b>.609</b>	-.077	-.051
WLB7	<b>.545</b>	.135	-.212
WLB8	<b>.504</b>	.165	-.250
R1	-.017	.019	<b>-.804</b>
R2	.059	.000	<b>-.756</b>
R3	.073	.215	<b>-.476</b>
R4	.215	<b>.403</b>	-.238
R5	-.092	<b>.460</b>	-.002
R6	.182	.278	<b>-.490</b>
GD1	.084	<b>.439</b>	-.280
GD2	<b>.595</b>	.206	.101
GD3	<b>.731</b>	.058	.145
GD4R	<b>.698</b>	-.042	.128
GD4	<b>-.698</b>	.042	-.128
GD5	.240	.203	-.342

<sup>4</sup> Factor loadings above .32 are bolded. *Note.* H = health; S = safety; WLB = work-life balance, R = recognition, GD = growth and development; I = involvement, SRF = culture of support, respect, and fairness.

GD6	.138	<b>.391</b>	<b>-.422</b>
I1	<b>.665</b>	-.052	-.190
I2	<b>.508</b>	-.073	<b>-.399</b>
I3	<b>.627</b>	-.227	-.191
I4	<b>.556</b>	.112	-.281
I5	<b>.602</b>	-.174	-.235
I6	<b>.626</b>	.055	-.091
I7	<b>.385</b>	-.057	<b>-.526</b>
I8	-.034	.065	<b>-.605</b>
I9	-.088	.015	<b>-.846</b>
I10	-.136	-.103	<b>-.869</b>
I11	-.137	.039	<b>-.785</b>
SRF1	.191	-.084	<b>-.637</b>
SRF2	.217	-.090	<b>-.697</b>
SRF3	<b>.334</b>	.154	<b>-.519</b>
SRF4	<b>.317</b>	.029	<b>-.498</b>
SRF5	.242	.121	<b>-.545</b>

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culture of support, respect and fairness items. After these modifications were made, another Principal Components Analysis with an oblimin rotation was conducted. Three factors emerged, accounting for 55.7% of the variance (see Table 2 for factor loadings of the final 30 items). Specifically, the employee recognition; culture of support, respect, and fairness; and half of the employee involvement items, (i.e., those pertaining to clear communication with employees) loaded onto the first factor. These items appeared to assess clear organizational communication and respectful interpersonal interactions. The work-life balance, growth and development, and half of the involvement items, (i.e., those pertaining to decision-making authority) loaded onto the second factor. These items appeared to assess the degree to which the organization grants opportunities for employee control (e.g., control over the ability to balance one's family and work life; opportunities to expand on one's knowledge and skills; control to make workplace decisions). Finally, the health and safety items loaded onto the third factor. The list of final items, corresponding with their respective factors, can be viewed in Appendix D. The 3-component PHW model revealed in the factor analysis, was used for all further analyses. Means, standard deviations, reliability data, and intercorrelations for all study variables are presented in Table 3.

A multivariate analysis of variance was used to explore differences in the study variables between the three samples (i.e., the researcher-recruited sample, the Halifax Chamber of Commerce sample, and the smaller Chambers of Commerce sample). The three samples did not differ in terms of organization size, total number of formal practices offered, communication/interpersonal treatment, employee control, health and safety, financial/operational performance, or employee attitudes. The groups did differ,

Table 2.

*Pattern matrix for final Principal components analysis (N = 116).<sup>5</sup>*

	Component		
	1	2	3
H4	.148	<b>.743</b>	.208
H5	.310	<b>.449</b>	-.150
S1	-.067	<b>.784</b>	-.123
S2	-.103	<b>.854</b>	-.153
S3	-.006	<b>.790</b>	-.037
WLB1	<b>.747</b>	.144	.000
WLB3	<b>.596</b>	.065	-.136
WLB4	<b>.821</b>	-.175	-.029
WLB6	<b>.801</b>	-.114	.108
WLB7	<b>.686</b>	.080	-.101
WLB8	<b>.630</b>	.075	-.153
R1	.049	.059	<b>-.784</b>
R2	.095	.045	<b>-.761</b>
R3	.085	.259	<b>-.505</b>
R6	.234	.248	<b>-.496</b>
GD2	<b>.593</b>	.153	.093
GD3	<b>.657</b>	.069	.117
GD4R	<b>.467</b>	.037	-.002
I1	<b>.620</b>	-.032	-.188
I3	<b>.680</b>	-.168	-.103
I4	<b>.518</b>	.114	-.288
I5	<b>.608</b>	-.108	-.182
I6	<b>.736</b>	.072	.029
I9	-.058	.089	<b>-.845</b>
I10	-.102	-.095	<b>-.862</b>
I11	-.086	.024	<b>-.808</b>
SRF1	.273	-.114	<b>-.587</b>
SRF2	.311	-.116	<b>-.617</b>
SRF5	.255	.108	<b>-.503</b>

<sup>5</sup> Factor loadings above .32 are bolded. *Note.* H = health; S = safety; WLB = work-life balance, R = recognition, GD = growth and development; I = involvement, SRF = culture of support, respect, and fairness.

Table 3.

*Means, standard deviations, reliabilities, and intercorrelations of study variables*

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Profit/Not-for-profit	---	--	---																
2. High-Risk Industry	---	---	-.05	---															
3. % unionized	9.45	25.91	.15	.22 <sup>a</sup>	---														
4. # of Employees	169.47	560.03	.19	.01	.47 <sup>c</sup>	---													
5. Involve. Practices	6.51	3.34	.14	-.01	.05	.15	(.79)												
6. WLB Practices.	2.62	1.80	.06	-.07	.06	.37 <sup>c</sup>	.29 <sup>b</sup>	(.61)											
7. G&D Practices.	4.87	2.53	.01	.08	.19	.31 <sup>b</sup>	.50 <sup>c</sup>	.34 <sup>c</sup>	(.72)										
8. Safety Practices.	6.24	4.24	.02	.39 <sup>c</sup>	.32 <sup>b</sup>	.21 <sup>a</sup>	.40 <sup>c</sup>	.07	.52 <sup>c</sup>	(.92)									
9. Health Practices.	10.39	5.31	.10	.22 <sup>a</sup>	.28 <sup>b</sup>	.25 <sup>a</sup>	.54 <sup>c</sup>	.33 <sup>b</sup>	.60 <sup>c</sup>	.60 <sup>c</sup>	(.80)								
10. Recog. Practices.	3.43	2.03	-.21 <sup>a</sup>	.22 <sup>a</sup>	-.06	.21 <sup>a</sup>	.51 <sup>c</sup>	.29 <sup>b</sup>	.61 <sup>c</sup>	.50 <sup>c</sup>	.56 <sup>c</sup>	(.73)							
11. Total PHW Practice	34.59	14.61	.08	.23 <sup>a</sup>	.22 <sup>a</sup>	.29 <sup>b</sup>	.74 <sup>c</sup>	.45 <sup>c</sup>	.77 <sup>c</sup>	.76 <sup>c</sup>	.88 <sup>c</sup>	.74 <sup>c</sup>	(.93)						
12. Communication	4.11	.57	-.04	.05	-.36 <sup>c</sup>	-.33 <sup>c</sup>	.21 <sup>a</sup>	.07	.20 <sup>a</sup>	.02	.01	.21 <sup>a</sup>	.13	(.91)					
13. Control	3.96	.61	.01	-.08	-.34 <sup>c</sup>	-.33 <sup>c</sup>	.22 <sup>a</sup>	.26 <sup>b</sup>	.14	-.12	-.00	.09	.09	.66 <sup>c</sup>	(.91)				
14. Health & Safety	4.25	.63	.09	.23 <sup>a</sup>	.13	-.06	.35 <sup>c</sup>	-.01	.41 <sup>c</sup>	.57 <sup>c</sup>	.50 <sup>c</sup>	.30 <sup>b</sup>	.53 <sup>c</sup>	.36 <sup>c</sup>	.33 <sup>c</sup>	(.83)			
15. Fin./Oper. Perform.	4.05	.56	-.17	.08	-.16	-.17	.33 <sup>b</sup>	.09	.23 <sup>a</sup>	.13	.24 <sup>a</sup>	.34 <sup>c</sup>	.32 <sup>b</sup>	.43 <sup>c</sup>	.28 <sup>b</sup>	.26 <sup>b</sup>	(.79)		
16. Attitudes	3.80	.68	-.09	-.15	-.24 <sup>a</sup>	-.24	.12	.22 <sup>a</sup>	-.10	-.23 <sup>a</sup>	-.06	-.02	-.03	.47 <sup>c</sup>	.55 <sup>c</sup>	.16	.49 <sup>c</sup>	(.88)	
17. Withdrawal Behav.	2.05	.86	-.12	.14	.11	.13	.06	-.16	.24 <sup>a</sup>	.45 <sup>c</sup>	.27 <sup>b</sup>	.35 <sup>c</sup>	.30 <sup>b</sup>	-.15	-.35 <sup>c</sup>	.07	-.15	-.50	---

*Note:* Reliability coefficients for each variable are shown in parentheses along the diagonal

*Note:* Higher values mean higher levels of the attribute; Profit/not-for-profit: 0 = Profit, 1 = Not-for-profit; High-risk Industry: 0 = No, 1 = Yes

<sup>a</sup>  $p < .05$ ; <sup>b</sup>  $p < .01$ ; <sup>c</sup>  $p < .001$

however, with respect to employee withdrawal behaviours ( $F = 3.13, p < .05$ ). Specifically, participants recruited from the smaller Chambers of Commerce reported lower withdrawal behaviors ( $M = 1.57$ ) than those reported by the researcher-recruited participants ( $M = 2.10$ ), and those recruited from the Halifax Chamber of Commerce ( $M = 2.20$ ). This difference could be due to the fact that there are fewer employment options in smaller cities/towns, and thus employees may be less likely to turnover. The pattern of correlations among study variables was similar for all three groups.

#### *Types and Popularity of Specific PHW Practices*

Of the 77 specific healthy workplace practices included in the survey, a mean number of 34.59 ( $SD = 14.9$ ), practices were found to be offered by organizations. Table 4 lists the percentage of organizations that offer each of the healthy workplace practices. Specific practices offered by more than 75 percent of organizations included: open-door policy (89.1%; employee involvement), prescription drug plan, dental plan, eye plan, physiotherapy coverage, (81.8%, 81.8%, 80.9%, 75.5%; health), written safety polices (76.4%; safety), and informal verbal appreciation (85.5%; employee recognition). Practices offered by less than 15 percent of organizations included: sabbaticals, career counseling opportunities, job rotation (7.3%, 13.6%, 14.5%; growth and development), information provision on drug and/or alcohol abuse, intramural sport leagues (11.8%, 12.7%; health), subsidized elder care, career breaks, on-site or subsidized child care programs, information provision for child care or elder care, job sharing (1.8%, 6.4%, 7.3%, 13.6%, 14.5%; work-life balance). The minimum number of specific healthy workplace initiatives reported was three, while the maximum number of practices was 64.

Table 4.

*Percentage of organizations who offer various healthy workplace practices (N = 110).*

Type of Initiative	Percentage of organizations
<u>Employee Involvement</u>	
1. "Open-door" policy	89.1
2. One-on one employee supervisor meetings	70.9
3. Participation in own job performance evaluations	61.8
4. Participate problem solving	54.5
5. Team building activities	52.7
6. Individual goal setting	50.9
7. Employee surveys	49.5
8. Joint employee-management committees	46.4
9. Employee involvement in equipment and technology purchase decisions	46.4
10. Employee committees and task forces	35.5
11. Self-managed work teams	29.1
12. Structured suggestion systems (e.g., suggestion boxes)	26.4
13. Profit sharing	20.9
14. Peer review of employee performance	18.2
<u>Work-life balance</u>	
1. Flexible work scheduling	64.5
2. Personal leave options	58.2
3. Part-time options	45.5
4. Tele-work	30.0
5. On-site (or near-to-your-work) support services	25.5
6. Job sharing	14.5
7. Information provision for child-and/or elder care	13.6
8. On-site or subsidized child care programs	7.3
9. Career breaks	6.4
10. On-site or subsidized elder care	1.8
<u>Employee growth and development</u>	
1. In-house training	71.8
2. Continuing education courses	68.2
3. Professional development programs	60.9
4. Additional training if employee performance needs improvement	55.5
5. Coaching or mentoring programs	49.1

6. Opportunities for internal career advancement	49.1
7. Specialized training for supervisors or managers	49.1
8. Tuition reimbursement	55.5
9. Job rotation	14.5
10. Career-counseling opportunities	13.6
11. Sabbaticals	7.3

### Employee Health

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1. Dental plan	81.8
2. Prescription drug plan	81.8
3. Eye plan	80.9
4. Physiotherapy coverage	75.5
5. Chiropractor coverage	72.7
6. Massage therapy coverage	69.1
7. Mental health specialist coverage	66.4
8. Paid personal days	60.0
9. Employee Assistance Programs	53.6
10. Coaching or mentoring programs	49.1
11. Long-term unpaid leaves	40.0
12. Ergonomically designed work stations	40.0
13. Initiatives to prevent discrimination	37.3
14. Healthy eating programs or options	35.5
15. Clinics (e.g., flu shots, blood pressure, mammograms)	33.7
16. Initiatives to prevent sexual harassment	32.7
17. Long-term paid leaves	32.7
18. On-site athletic programs or gym membership subsidies	31.8
19. Active living challenges	23.6
20. Smoking cessation programs	22.7
21. On-site wellness centres	16.4
22. Intramural sport leagues	12.7
23. Information sessions on drug and alcohol abuse	11.8

### Safety

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1. Written safety policies	76.4
2. First aid training	73.6
3. Workplace hazards identification	60.9
4. Tracking safety-related accidents	60.0
5. Preventative equipment maintenance	58.2
6. Safety checklists	55.5
7. Safety committee	54.5
8. Accident prevention	47.3
9. Injury prevention	46.4
10. Confidential reporting system for safety violations	35.5
11. Tracking safety-related "close calls"	33.6

12. Programs on violence in the workplace 32.7

Employee Recognition

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1. Informal verbal appreciation/recognition	85.0
2. Monetary bonuses based on performance	54.5
3. Employee successes detailed in print and/or electronic document	50.9
4. Merit raises	48.2
5. Recognition ceremonies	45.5
6. Employee awards (e.g., employee of the month; year)	38.2
7. Non-monetary bonuses based on performance	24.8

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In addition to indicating whether specific healthy workplace practices were offered within their organization, respondents were also asked to list any “other” healthy workplace initiatives provided at their workplace, for each healthy workplace factor. This data was reviewed for any reoccurring practices. Although minimal information was provided for these items, practices listed by at least 4 participants included: (1) financial planning classes/seminars (work-life balance), (2) covered membership fees to professional associations/external organizations (growth and development), (3) emergency evacuation procedures, (employee safety), (4) wellness sessions on health-related topics, (5) on-line health assessments, (6) workplace wellness committees (employee health), (7) years of service awards/pins, and (8) social events for employees (employee recognition).

In order to provide insight into differences in the offering of specific PHW practices by organization size, organizational participants were divided into six groups, according to their total number of employees (Group 1: 4 employees or less; Group 2: 4-19 employees; Group 3: 20-49 employees; Group 4: 50-99 employees; Group 5: 100-499 employees; Group 6: 500 or more employees; see Table 5). This ‘employee group’ variable was used only for descriptive purposes.

#### *Relationship Between PHWs and Organization Size*

Hypothesis 1 aimed to determine if organization size was associated with (a) total of specific PHW practices, and (b) general PHW ratings. Pearson correlation coefficients between the total number of employees, total number of specific practices, and ratings of the three PHW components (i.e., communication/ interpersonal treatment, opportunities

Table 5.

*Percentage of organizations who offer various healthy workplace practices by organization size (N = 110)*

Type of Initiative	Number of employees					
	1 - 4 (n = 18)	4 - 19 (n = 36)	20 - 49 (n = 19)	50 - 99 (n = 8)	100 - 499 (n = 19)	500+ (n = 9)
<b>Employee Involvement</b>						
1. Employee surveys	18.8	32.4	63.2	50.0	73.7	75.0
2. Joint employee-management committees	17.6	32.4	63.2	50.0	68.4	50.0
3. Employee committees and task forces	11.8	20.6	42.1	62.5	52.6	37.5
4. One-on-one employee supervisor meetings	35.3	79.4	68.4	100	78.9	50.0
5. Participation in own job performance evaluations	23.5	64.7	68.4	50	73.7	87.5
6. "Open-door" policy	64.7	91.2	94.7	100	100	75.0
7. Structured suggestion systems (e.g., suggestion boxes)	5.9	14.7	31.6	50	47.4	37.5
8. Peer review of employee performance	23.5	11.8	21.2	25.0	15.8	12.5
9. Profit sharing	29.4	5.9	31.6	12.5	31.6	25
10. Self-managed work teams	29.4	29.4	36.8	12.5	21.1	25
11. Participative problem solving	41.2	55.9	52.6	62.5	68.4	37.5
12. Individual goal setting	41.2	52.9	57.9	50.0	42.1	50.0
13. Team building activities						
14. Employee involvement in equipment and technology purchase decisions	17.6	58.8	57.9	75.0	63.2	37.5
<b>Work-life balance</b>						
1. On-site or subsidized child care programs	11.8	5.9	0	0	5	33.3
2. On-site or subsidized elder care	0	0	5.3	0	0	11.1
3. Information provision for child-and/or elder care	0	8.8	10.5	12.5	15.0	44.4
4. Personal leave options	29.4	58.8	57.9	62.5	75.0	66.7
5. Career breaks	0	2.9	10.5	0	10.0	11.1
6. On-site (or near-to-your-work) support services	5.9	26.5	21.1	37.5	30.0	44.4
7. Flexible work scheduling	82.4	55.9	73.7	87.5	60.0	44.4

8. Tele-work	47.1	26.5	26.3	25.0	10.0	55.6
9. Job sharing	11.8	14.7	15.8	12.5	10.0	22.2
10. Part-time options	52.9	41.2	26.3	75.0	45.0	66.7

#### Growth and Development

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1. Coaching or mentoring programs	29.4	50.0	42.1	75.0	50.0	66.7
2. Sabbaticals	0	8.8	5.3	12.5	5.0	11.1
3. Tuition reimbursement	17.6	50.0	84.2	62.5	55.0	77.8
4. Continuing education courses	29.4	76.5	68.4	75.0	75.0	88.9
5. Job rotation	5.9	8.8	10.5	12.5	30.0	33.3
6. Opportunities for internal career advancement	0	35.3	57.9	87.5	70.0	88.9
7. Specialized training for supervisors or managers	17.6	26.5	52.6	62.5	75.0	100
8. Career-counseling opportunities	0	5.9	10.5	37.5	20.0	33.3
9. In-house training	35.3	64.7	84.2	100	75.0	100
10. Professional development programs	41.2	76.5	42.1	75.0	55.0	77.8
11. Additional training if employee performance needs improvement	17.6	47.1	63.2	87.5	65.0	77.8

#### Health

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1. Stress management training	11.8	26.5	21.1	25.0	15.0	55.6
2. Clinics (e.g., flu shots, blood pressure, mammograms)	11.8	14.7	36.8	62.5	75.0	55.6
3. Smoking cessation programs	0	8.8	21.1	50.0	40.0	44.4
4. Information sessions on drug and alcohol abuse	0	5.9	15.8	12.5	10.0	33.3
5. Intramural sport leagues	0	8.8	0	12.5	40.0	22.2
6. On-site wellness centres	11.1	8.8	10.5	25	26.3	44.2
7. Active living challenges	11.8	11.8	21.1	25.0	45.0	44.4
8. On site athletic programs or gym membership subsidies	5.9	14.7	47.4	75.0	35.0	66.7
9. Employee assistance programs	17.6	32.4	57.9	75.0	85.0	100
10. Initiatives to prevent sexual harassment	5.9	29.4	47.4	62.5	35.0	22.2
11. Initiatives to prevent discrimination	11.8	29.4	42.1	62.5	40.0	66.7
12. Ergonomically designed work stations	11.8	38.2	21.1	87.5	55.0	55.6
13. Healthy eating programs or options	11.8	23.5	31.6	37.5	60.0	66.7
14. Paid personal days	47.1	67.6	57.9	37.5	65.0	66.7
15. Long-term paid leaves	17.6	29.4	26.3	37.5	50.0	33.3
16. Long-term unpaid leaves	5.9	32.4	47.4	62.5	60.0	55.6
17. Dental Plan	29.4	82.4	94.7	100	95.0	100
18. Eye Plan	35.3	73.5	100	100	95.0	100

19. Prescription drug plan	29.4	79.4	100	100	95.0	100
20. Chiropractor coverage	23.5	67.6	84.2	100	90.0	88.9
21. Mental health specialist coverage	11.8	58.8	84.2	87.5	85.0	100
22. Physiotherapy coverage	17.6	73.5	94.7	87.5	95.0	100
23. Massage therapy coverage	23.5	70.6	78.9	87.5	85.0	77.8

#### Safety

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1. Written safety policies	23.5	76.5	78.9	100	100	100
2. Tracking safety-related accidents	11.8	47.1	68.4	75.0	95.0	77.8
3. Tracking safety-related “close calls”	5.9	8.8	31.6	62.5	80.0	44.4
4. Confidential reporting system for safety violations	5.9	29.4	36.8	50	50	66.7
5. Safety checklists	17.6	38.2	68.4	87.5	75.0	88.9
6. Preventative equipment maintenance	11.8	47.1	68.4	87.5	80.0	88.9
7. Safety committee	5.9	20.6	73.7	100	95.0	100
8. Accident prevention	11.8	35.3	47.4	75.0	70.0	77.8
9. Injury prevention	11.8	35.3	47.4	75.0	65.0	88.9
10. First aid training	35.3	61.8	84.2	100	90.0	100
11. Workplace hazards identification	29.4	47.1	57.9	87.5	85.0	100
12. Programs on violence in the workplace	5.9	20.6	47.4	50.0	45.0	55.6

#### Employee Recognition

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1. Employee awards	11.8	26.5	47.4	50.0	60.0	44.4
2. Informal verbal appreciation/recognition	76.5	85.3	89.5	87.5	85.0	100
3. Merit raises	17.6	41.2	52.6	87.5	65.0	55.6
4. Monetary bonuses based on performance	41.2	38.2	57.9	75.0	70.0	77.8
5. Non-monetary bonuses based on performance	5.9	20.6	31.6	25.0	45.0	25.0
6. Employee successes detailed in print and/or electronic documents	23.5	38.2	57.9	50.0	70.0	88.9
7. Recognition ceremonies	11.8	29.4	57.9	75.0	60.0	88.9

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for employee control, and health and safety), were examined. Size of organization was positively related to number of specific PHW practices,  $r = .29, p < .01$ , such that larger organizations reported to offer more PHW practices than smaller organizations. Thus, hypothesis 1a was supported. With respect to ratings of general PHW components, size of organization was *negatively* related to ratings of organizational communication/interpersonal interactions,  $r = -.33, p < .001$ , and employee control,  $r = -.33, p < .001$ , such that smaller organizations were more likely to report higher communication and employee control scores than larger organizations. Size of organization was not significantly related to ratings of general health and safety ( $r = -.06, p > .05$ ). Thus, hypothesis 1b was partially supported.

#### *Relationship Between PHWs and Industry Size*

Hypothesis 2 aimed to determine if organizations that were part of high-risk industries offered more health and safety practices than other organizations. As expected, operating in high-risk industries was positively related to both safety practices,  $r = .39, p < .001$ , and health practices,  $r = .22, p < .05$ , such that organizations reporting to be part of high-risk industries offered more health and safety practices. Thus, hypothesis 2 was supported.

#### *Linking PHW Factors with Organizational Outcome Variables*

The second goal of the study was to link psychologically healthy workplace components with various organizational outcome variables. Specifically, it was hypothesized that psychologically healthy workplace components would be positively related to (a) financial/operational performance, and (b) positive employee attitudes, and negatively related to (c) employee withdrawal behaviours. Pearson correlation

coefficients between the three PHW components (i.e., communication/ interpersonal treatment, employee control, and health and safety), and the employee outcome variables (i.e., financial/operational performance, positive employee attitudes, and employee withdrawal behaviours) were examined. Communication/interpersonal treatment, employee control, and health and safety were all positively related to financial/operational performance ( $r = .43, p < .001$ ;  $r = .28, p < .01$ ;  $r = .26, p < .01$ ; respectively). Thus, hypothesis 3a was supported. Both communication/interpersonal treatment,  $r = .47, p < .001$ , and employee control,  $r = .55, p < .001$ , were positively related to employee attitudes. Health and safety, however, was not found to be significantly related to employee attitudes,  $r = .16, p > .05$ . Thus, hypothesis 3b was partially supported. Finally, employee control was found to be negatively related to employee withdrawal behaviors,  $r = -.35, p < .001$ , however, neither interpersonal treatment  $r = -.15, p > .05$ , or health and safety,  $r = .07, p > .05$ , were found to be related to employee withdrawal. Thus, hypothesis 3c was also partially supported.

Hypothesis 4 aimed to determine if PHW components were able to account for additional variance in the three organizational outcome variables after controlling for organization size, percentage of employees unionized, whether the organization was part of a high-risk industry, and whether the organization was profit or not-for profit. To test this hypothesis, three hierarchical regression analyses were conducted to examine the incremental validity of three PHW components in predicting organizational outcomes, after accounting for the organizational control variables (see Table 6). In Step 1 of each analysis, all organizational control variables were entered. The three PHW components were then entered in Step 2. After controlling for organization size, percentage

Table 6.

*Summary of the hierarchal regression analysis for PHW factors predicting financial/operational performance, employee attitudes, and employee withdrawal behaviour, while controlling for organization size, percent unionized, whether or not the organization is part of a high-risk industry, and whether the organization is profit or not-for-profit (N = 110).*

Predictor	Financial/Operational		Attitudes		Withdrawal	
	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$
<b>Step 1</b>		.07		.09 <sup>a</sup>		.06
Total Employees	-.09		-.17		.14	
Percent Unionized	-.13		-.13		.04	
High-risk industry	.11		-.12		.13	
Profit/Not-for-profit	-.13		-.04		-.15	
<b>Step 2</b>		.16 <sup>b</sup>		.25 <sup>c</sup>		.14 <sup>b</sup>
Total Employees	-.00		-.03		.07	
Percent Unionized	-.04		.03		-.08	
High-risk industry	.03		-.13		.06	
Profit/Not-for profit	-.16		-.08		-.14	
Health and Safety	.15		-.02		.21	
Control	-.02		.41 <sup>b</sup>		-.47 <sup>a</sup>	
Communication	.36 <sup>b</sup>		.20		.07	
<b>Total R<sup>2</sup></b>		.23 <sup>b</sup>		.34 <sup>c</sup>		.20 <sup>b</sup>

<sup>a</sup>  $p < .05$ ; <sup>b</sup>  $p < .01$ ; <sup>c</sup>  $p < .001$

unionized, whether the organization was a part of a high-risk industry, and whether the organization was profit or not-for-profit, the three PHW components were able to account for an additional 16% of the variance in financial/operational performance,  $F$  change (7, 96) = 3.99,  $p < .01$ ; an additional 25% of the variance in employee attitudes,  $F$  change, (7, 96) = 7.20,  $p < .001$ ; and an additional 14% of the variance in employee withdrawal behaviours,  $F$  change (7, 96) = 3.35,  $p < .01$ . Thus, hypotheses 4a, b, and c, were all supported. In the final model, only the PHW component of communication/interpersonal treatment emerged as a significant predictor of financial/operational performance ( $\beta = .38$ ,  $p < .01$ ). The PHW component of employee control was the only unique significant predictor of both employee attitudes ( $\beta = .41$ ,  $p < .01$ ), and employee withdrawal behaviours ( $\beta = -.47$ ,  $p < .001$ ).

*Mediation.* Hypothesis 5 aimed to test whether the relationships between PHW aspects and (a) financial/operational performance, as well as (b) employee withdrawal, were mediated by employee attitudes. To test this hypothesis, separate analyses were conducted, using each of the three PHW components (e.g., communication/interpersonal treatment, employee control, and health and safety), as independent variables, and both financial/operational performance, and withdrawal behaviours as dependent variables. According to Baron & Kenny (1986), for mediation to occur, (1) the independent variable must be significantly related to mediator, (2) the independent variable must be significantly related to the dependant variable in the absence of the mediator, (3) the mediator must have a significant unique relationship with the dependant variable, and (4), the effect of the independent variable on the dependant substantially decreases or disappears on inclusion of the mediator. With two outcomes, and three predictors, there

were a total of six potential mediation models to test. However, the health and safety component was not significantly related to employee attitudes; which violated Baron and Kenny's first mediation criteria. Similarly, neither the communication/interpersonal treatment component, or the health and safety component were significantly related to employee withdrawal; which violated the second mediation criteria. This left three models to test (i.e., the relationship between communication/interpersonal treatment and employee control with financial/operational performance, and the relationship between employee control and employee withdrawal behaviours). The results of these three mediation analyses can be viewed in Figure 1.

When financial/operational performance was used as the outcome variable, after adding employee attitudes to the equation, the beta value associated with communication/interpersonal treatment was reduced, but still significant ( $\beta = .25, p < .01$ ), and employee control was reduced to non-significance ( $\beta = .01, p > .05$ ). With employee withdrawal behaviours as the outcome variable, the addition of employee attitudes resulted in employee control being reduced to non-significance, ( $\beta = -.11, p > .05$ ). The Sobel test (1982) was then performed, (using the calculator available at <http://www.unc.edu/~preacher/sobel/sobel.htm>) to determine if the reduction in communication/interpersonal was significant. The results indicated a significant effect for communication/interpersonal treatment (Sobel = 3.28,  $p < .01$ ); and thus a partial mediation effect of the relationship between communication/interpersonal treatment and financial/operational performance through employee attitudes. Thus, hypotheses 5a and 5b were partially supported.

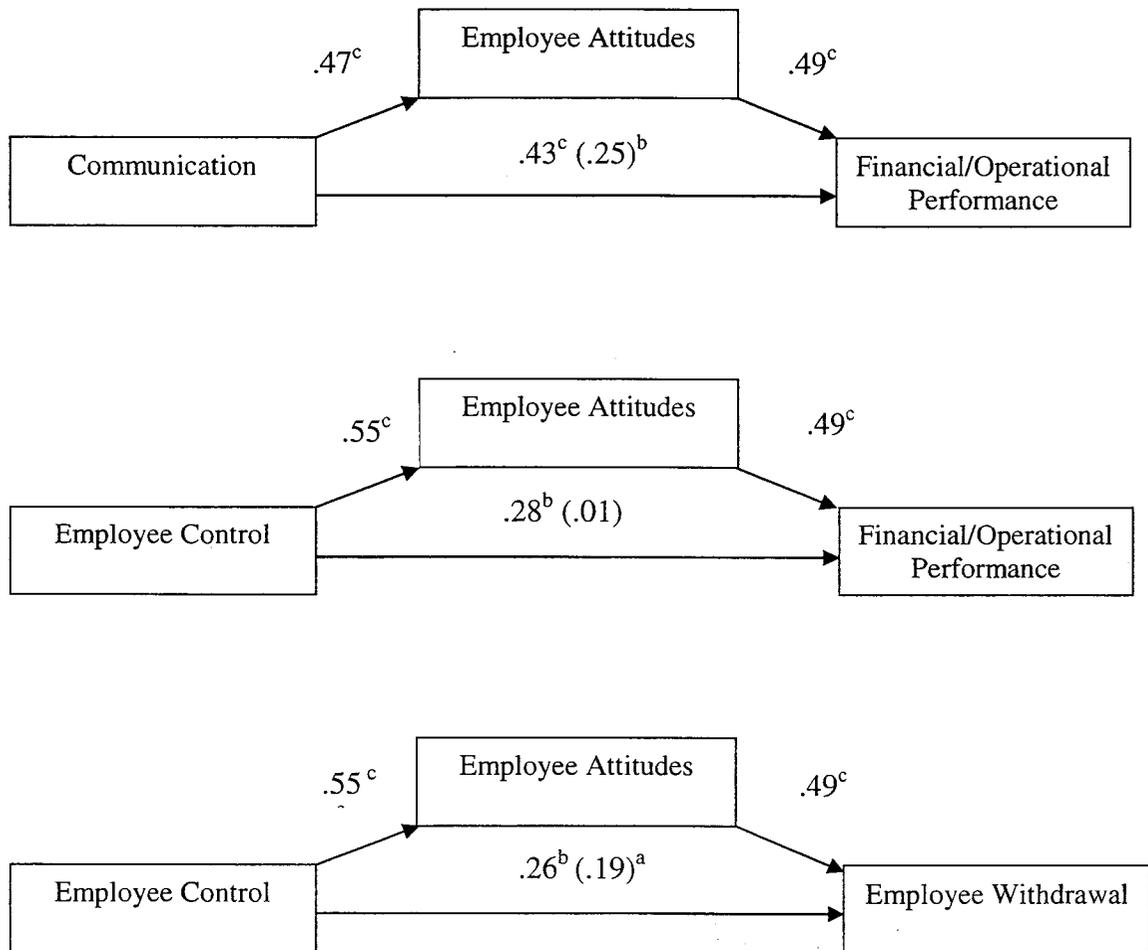


Figure 1. Standardized regression coefficients for the relationship between communication and financial/operational performance (top), employee control and financial/operational performance (middle), and employee control and employee withdrawal (bottom), as mediated by employee attitudes.

Note. The standardized regression coefficient between the PHW component and firm performance controlling for employee attitudes is in parentheses.

<sup>a</sup>  $p < .05$ ; <sup>b</sup>  $p < .01$ ; <sup>c</sup>  $p < .001$

## Discussion

The first goal of the present study was to obtain a better understanding of the types and usage of healthy workplace initiatives being used in Nova Scotia. I sought to add to the current literature by utilizing a more comprehensive definition of a healthy workplace, and discussing the usage of a wider array of healthy workplace practices than previous surveys. I also wanted to include small organizations, which have generally been excluded from healthy workplace surveys and research. Moreover, I aimed to determine whether small organizations differed from large organizations with respect to 1) general healthy workplace initiatives and values, and 2) the presence of specific healthy workplace practices. The second goal of this study was to link psychologically healthy workplaces to various organizational outcomes. It was hypothesized that a psychologically healthy workplace would be positively correlated with financial/operational performance, and positive employee attitudes, and negatively correlated with employee withdrawal behaviours. It was also hypothesized that PHW aspects would be able to account for additional variance in overall organizational outcomes, even after accounting for several organizational variables (i.e., organization size, percentage unionized, type of industry, profit or not-for-profit). Finally, a mediation model of PHWs was tested, to determine if aspects of healthy workplaces were able to influence organizational outcomes through an impact on employees' attitudes.

### *Factor Structure of PHW*

A Principal Components Analysis was conducted, and after some modifications, three factors emerged accounting for 55.7% of the variance. Factor 1 consisted of items pertaining to clear communication with employees (e.g., communicating appreciation,

communicating organizational motives, etc.), and respectful interactions (e.g., treating employees with dignity and respect; ensuring positive relationships between employees and management, etc.). In a factor analysis conducted by Browne (2001), “employee communications” also emerged as a clear, consistent factor. Factor 2 consisted of items pertaining to the provision of opportunities and/or resources for employees to exercise control (e.g., control over the ability to balance one’s family and work life; opportunities to expand on one’s knowledge and skills; control to make workplace decisions). This factor appears to be similar to the concept of “flexible workplace practices” discussed in the literature (Gittleman et al., 1998). It also encompasses the construct of employee “empowerment” (Birdi, et al., 2008). Finally, Factor 3 related to workplace health and safety factors; the traditional conceptualization of a healthy workplace. This 3-factor model was then used for all other analyses in the study.

The 7-factor psychologically healthy workplace model did not fit the data in the present study. This model was based on the APA PHW model (APA, 2009), and on existing research (e.g., Grawitch et al., 2006; 2007; Kelloway & Day, 2005a; 2005b). Although there is still strong theory to support the seven factors utilized in the present study, empirical research on the PHW factor structure is severely lacking in the literature. To the best of my knowledge, there is only one published study which examines the PHW factor structure (i.e., Grawitch et al., 2007). Given the fact that the APA PHW model is the most utilized and promoted PHW model, there is certainly a need for additional factor analytic research on these psychologically healthy workplace factors. Future research on the PHW scale used in the present study should utilize the original 44 items, and determine if the factors are replicated. Moreover, it could be the case that differential

results are obtained when using PHW scales on employees (i.e., measuring satisfaction with PHW practices), and when using the scales on organizations (as was done in the present study). Additionally, the original PHW factors may be more likely to emerge with a larger sample. Tabacknick and Fidell suggest that ‘it is comforting to have at least 300 cases for factor analysis.’ (p. 613). In sum, additional research on the PHW scale would help make refinements and maximize predictive validity

#### *Types and Popularity of Specific PHW Practices*

In terms of specific practices, organizations reported that almost half (45%) of the 77 healthy workplace initiatives were utilized in their workplaces. This appears to be a high number of reported practices. The fact that some of the “check-list” items were practices that the majority of workplaces (regardless of size or industry) would likely have available could have inflated this number. Specifically, prescription drug plans, dental plans, eye plans, physiotherapy coverage, written safety policies, verbal praise/recognition, and an open-door policy were initiatives reported to be offered by 75% or more of the organizations. Additional details of the specific initiatives used (or neglected to be used), as well as suggestions for improvement, are discussed below.

*Opportunities for Employee Involvement.* Less than half of organizations reported using employee surveys, structured suggestions systems (e.g., suggestion boxes), or involving employees in equipment or technology purchases (49.5%, 46.4%, and 26.4% respectively). These initiatives would cost little or nothing to implement, yet would likely enhance employees’ sense of involvement and control within the organization.

Additionally, only a little over half of organizations (50.9%) reported using individual goal setting with employees. Given the proven benefits of goal setting (Locke, Shaw,

Saari, & Latham, 1981), this is certainly an initiative from which organizations could benefit.

*Opportunities to Control Work-life Conflict.* Of the total organizations, 64.5% reported to offer flexible work scheduling (variable start/end times; choice of shifts, etc.). However, organizations with over 500 employees were the *least* likely to offer this practice (44%). This can be compared with organizations with less than 4 employees, where 82.4% indicated to offer flexible work scheduling. Perhaps the more informal nature of smaller organizations is more conducive to the offering of flexible work scheduling. Overall, very few organizations provided subsidized or onsite child-care, or elder-care programs (7.3% and 1.8%, respectively). This is an investment that organizations should consider given the increasing demands placed on employees in these domains, and the high value that employees place on such initiatives (Galinsky et al., 1996). Moreover, only 13.6% of organizations indicated that they provide information to employees on child and/or elder-care. This latter initiative could be a very easy, cost effective way to aid employees in having some control over handling their responsibilities outside of work, and would be particularly useful for organizations lacking the resources to offer onsite or subsidized child care. In a Statistics Canada survey, about half of individuals informally caring for an elderly parent wanted more information on how best to do the tasks required of them, as well as on the specific health issues that were affecting them (Cranswick, 2002).

*Opportunities to Expand Knowledge/Skills.* With respect to offering opportunities for employees to expand their skills and knowledge, the most popular initiatives included training and continuing education courses (71.8% and 68.2% respectively). Less than half

of organizations, however, reported to offer specialized training for managers and supervisors. Given the research on the positive benefits of quality leadership (Arnold et al., 2007), and the negative effects of poor leadership (Kelloway, Sivanathan Francis, Barling, 2005), this is something that organizations should consider. Moreover, in an open-ended question asking participants to indicate any growth and development initiatives they did *not* currently offer, but would want to offer in the future, many organizational respondents indicated that leadership training was something that they were interested in.

*Safety.* The majority of organizations reported the existence of written safety rules in their organization, as well as the provision of first-aid training (76.4% and 73.6%, respectively). Moreover while 60% of organizations reported to track safety-related accidents, only 33.6% reported to track safety-related close calls. This latter initiative could be an important means by which organizations could prevent an actual safety-related incident from occurring. Additionally, only 35.5% of organizations reported to have a confidential system for reporting safety violations. Research shows that the lack of such a system could act as a barrier to the reporting of safety incidents (Vincent, Stanhope, Crowley-Murphy, 1999)

#### *PHW and Organization Size.*

As expected, larger organizations reported to offer more formal PHW practices than smaller organizations. Intuitively, this result makes sense. Smaller organizations may have less formal programs as a result of fewer staff, and smaller financial resources, to develop, maintain and fund some initiatives. Size of organization was also found to be predictive of ratings for some general PHW components. Specifically, size of

organization was *negatively* related to ratings of communication/interpersonal treatment, as well as ratings of employee control. That is, smaller organizations were more likely than larger organizations to rate a high presence of clear communication and respectful interactions with employees, as well as opportunities for employee control. There was no relationship between size of organization and ratings of health and safety initiatives. In sum, these results could suggest that in some aspects, smaller workplaces could have an advantage over larger organizations with respect to developing PHWs. For instance, due to fewer employees and greater accessibility of top management, the frequency of communication between management and employees would likely be enhanced, and would likely be based more on face-to-face interaction rather than through alternative means (e.g., memos, emails, etc). Smaller organizations may also have more flexibility than larger organizations with respect to implementing informal rules (i.e., allowing employees to leave work if a family issue arises). Larger organizations would have, through necessity, more rigid controls in place with respect to all aspects of business, including the implementation of healthy workplace practices. They would likely be less able to implement informal and impromptu initiatives. This lack of flexibility could result in missed opportunities for enhancing PHW components. Given the fact that small organizations may be more easily able to *informally* promote healthy workplace components, they may need to rely less on formal policies. Future research could attempt to tease apart the influence of formal and informal healthy workplace practices, and determine if there is a trade-off to implementing one form or the other.

Another possibility is that respondents' position in the organization could act as a confound in the relationship between size of organization and PHW ratings. For instance,

the enhanced PHW scores for small organizations could be a result of more owners completing the survey for these workplaces (as opposed to human-resource managers or other upper level managers). Future research should also attempt to tease apart the role of organizational position with respect to perceived organizational flexibility.

#### *PHW and High-Risk Industries*

As expected, organizations that were part of high-risk industries offered more health practices and more safety practices, than organizations that were not part of high-risk industries. This result makes sense, because high-risk industries likely need to have more health and safety practices in place out of necessity. High-risk industries were also found to offer a higher total of recognition practices, as well as a higher overall total of PHW practices. They were not found to offer more involvement practices, work-life balance, or growth and development practices. The higher overall total of PHW practices is likely due to their higher levels of health and safety practices. Finally, in addition to higher totals of *specific* health and safety practices, organizations that were part of high-risk industries also rated the *general* health and safety levels of their workplace as higher. This result is likely because health and safety issues are more prominent in these types of organizations, and thus they would be more likely to agree with statements such as “overall, safety is a high priority for the organization.” Organizations that were part of high-risk industries did not differ from other organizations with respect to the employee control or communication/interpersonal treatment components.

#### *Linking PHW Factors to Organizational Outcomes.*

Correlation coefficients in the present study indicated that of opportunities for employee control within organizations was significantly related to high

financial/operational performance, positive employee attitudes, and low employee withdrawal behaviours. The presence of clear communication and respectful interpersonal interactions was associated with both financial/operational performance, and positive employee attitudes. Finally, health and safety initiatives were linked with financial/operational performance. The fact that all three PHW components were associated with financial/operational performance is important in that it demonstrates that PHW components are not only associated with 'happy' or 'satisfied' employees, but with the actual performance and financial well-being of the organization. This provides evidence for the 'business-case' of developing psychologically healthy workplaces. Moreover, the component of employee control is the only component to have a significant relationship with all three outcome variables. This is consistent with the "employee empowerment" construct in the literature (of which the employee control factor encompasses), which has emerged as a consistent factor and has shown to be related to a variety of organizational outcomes (Birdi et al., 2008). Finally, it is interesting to note that the health and safety component was related solely to financial/operational performance, and not with either of the employee outcomes (i.e., attitudes or withdrawal). This could be because health and safety initiatives are perceived as aspects that are mandated and, although crucial for the well-being of the organization as a whole, may not necessarily influence employee attitudes and behaviours with their presence.

The hierarchal regression revealed that even after controlling for several organizational variables (i.e., organization size, percentage unionized, whether the organization was part of a high-risk industry, and whether the organization was profit or not-for-profit), the PHW components were able to explain a significant amount of the

variance in financial/operational performance, employee attitudes, and employee withdrawal (16%, 25%, and 14%, respectively). Moreover, when all variables were included, only communication/interpersonal treatment emerged as a unique, significant predictor of financial/operational outcomes, and only employee control emerged as a unique predictor of both employee attitudes and employee withdrawal. The fact that communication/interpersonal treatment was the best predictor of financial/operational performance indicates that communication is not merely a “soft” function, but one that influences business performance and organizational success. Moreover, the results also suggest that providing opportunities for employee control may be particularly important for influencing employee attitudes and behaviors. Most importantly, this analysis provides further compelling evidence for the business case of implementing PHW components into the workplace. Initiatives related to: (1) clear and positive communication and interactions with employees, (2) opportunities for employee to exercise control, and (3) enhancing workplace health and safety, are all within the realm of control of an organization, and can be used to enhance organizational performance. At a time when organizations are continuously looking for ways to remain competitive, (Grawitch et al., 2009), improving these PHW components would be an effective way to do so.

#### *Mediating Role of Employee Attitudes*

The PHW components of communication/interpersonal treatment, and employee control were found to indirectly influence financial/operational performance through the mediating influence of employee attitudes. Specifically, a full mediation effect was revealed for the relationship between employee control and financial/operational

performance, and a partial mediation effect was found between communication/interpersonal treatment and financial/operational performance. Moreover, employee control was also found to influence employee withdrawal behaviors through employee attitudes. In sum, both engaging in clear and respectful communication, as well as providing opportunities for employees to exercise control, can positively influence employee attitudes; which is ultimately predictive of positive organizational outcomes.

These results replicate and extend other research in the general organizational and management literature, which has found the impact of various other human resource management practices to be indirectly related to organizational outcomes through employee attitudes (e.g., Kusluvan, 2003). The finding also coincides with the happy/productive work thesis, indicating the benefits of enhancing employee attitudes such as job satisfaction and employee “happiness” (Wright, 2005; Wright & Cropanzano, 2000; Wright, Cropanzano & Bonnet, 2007). Ultimately, this mediation effect can help to understand the means by which a PHW is able to positively influence organizational outcomes. To the best of my knowledge, there has been no such research on the process by which PHW components contribute to the success of a workplace.

#### *Limitations and Future Research*

As with any research, there are limitations to the present study that should be addressed to guide future research. First, because the survey was completed by management personnel (i.e., CEOs, owners, directors, presidents, etc.), these individuals could have a vested interest in the organization, and thus there is the possibility of biased reporting. Similarly, because participants completed all measures themselves, there is also the possibility of common-method variance. The greatest concern with both issues would

be an artificial inflation of correlations between study variables. However, the presence of some non-significant, zero order correlations, suggests that these issues should not be a problem. Moreover, although I could have assessed healthy workplace practices using a measure of employee *perceptions* of such practices, it could be the case that an organization may have certain programs or policies in place that employees are not aware of. While employee perceptions of workplace initiatives are also very important to investigate, in this case I was interested in *actual* initiatives offered by the sample of organizations. Future research should compare managements' perceptions of the prevalence, types and use of healthy workplace practices, with the perceptions of employees. More specifically, a stratified random sample of employees from the participating organizations of the present study could be collected and compared with the data provided by management personnel in the current study.

Another potential limitation of the present study relates to the low response rate, and relatively small number of participants (N = 118). However, it is important to note that participants in the present study represented *organizations*, and not individual employees. The fact that 118 different organizations completed a very in-depth survey about the practices utilized in their organization is impressive when considering other existing research and surveys. Many existing studies have utilized a convenience sample of employees from one particular organization, in one particular context (e.g., Grawitch et al., 2007), which limits the generalizability of the results to contexts outside of the sampled organization. Moreover, the response rate received in the present study is similar to that reported by the Halifax Chamber of Commerce for previous, and much shorter surveys distributed among its organizational members (Brian Rose, personal

communication, June 15, 2009). In sum, although the number of organizational participants in the present study may result in low power for some analyses, when compared to existing research, the dataset obtained from the current study is one of the most comprehensive in existence. Future research should use the results from the present study to create a more succinct survey that could facilitate increased responses.

Lastly, because of the correlational nature of the study, it is difficult to determine if the presence of healthy workplace initiatives leads to positive employee and organizational outcomes, or if management's feelings about the workplace leads to more positive perceptions of the organization's policies and practices. Future research could employ longitudinal studies in order to determine whether creating a psychologically healthy workplace alters management's and employee's perceptions of the workplace, as well as whether it influences organizational and employee outcomes such as the ones assessed in the present study.

In addition to the research suggestions discussed above, a study investigating potential occupational differences in perceptions as to what constitutes a healthy workplace could be interesting. Moreover, rigorous evaluation studies on psychologically workplace interventions would also likely prove very useful. These studies are important in that they are able to provide information about causality. Evaluation studies would also prove useful in supporting the "business case" for psychologically healthy workplace interventions.

### Conclusion

Despite the limitations of the present study, I feel it has contributed to the very small body of psychologically healthy workplace literature. The study has provided

information about the usage of a wide array of healthy workplace practices, using a comprehensive definition of a psychologically healthy workplace. It has also provided some insight into the types of practices utilized by small organizations, which have typically been excluded from healthy workplace research. Moreover, the study revealed a 3-factor model of PHWs (i.e., communication/interpersonal treatment, employee control, and health and safety), and found these components to emerge as significant predictors of financial/operational performance, positive employee attitudes and employee withdrawal. The study also investigated the *means* by which PHWs are able to influence organizational outcomes, and found that some components of PHWs (i.e., communication/interpersonal treatment, and employee control) are indirectly related to organizational outcomes through their influence on positive employee attitudes.

Although organizations in Nova Scotia do appear to be keen towards developing psychologically healthy workplaces, there is, of course, always room for improvement. It is important that small organizations understand that they do not have to be limited by financial constraints with respects to implementing healthy workplace initiatives. Many of the practices discussed in the present study require very minimal cost. Although there is no one-size-fits-all approach for implementing healthy workplace practices, it is important for organizations to understand *all* the factors that make up a healthy workplace (i.e., not solely employee health and safety), so that they can then implement specific practices, suitable for their particular workplace, to enhance these factors. Future efforts should be made to educate businesses on the contributing factors of a psychologically healthy workplace, and the variety of quick and inexpensive initiatives that could be

introduced into their workplaces to enhance the overall healthiness and well-being of the organization.

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Appendix A

Specific Healthy Workplace Practices Measure

The following lists consist of specific healthy workplace initiatives that could exist within an organization. Please check any of the following items that currently exist within your organization.

**\*\*Please note that MANY of these items will NOT apply to your organization. The list is merely intended to cover ANY possible programs or procedures that could exist within a workplace\*\***

**(1) HEALTH**

Please indicate which, if any, of the following health initiatives exist within your organization:

<input type="checkbox"/>	Stress management training
<input type="checkbox"/>	Clinics (e.g. flu shots, blood pressure, mammograms)
<input type="checkbox"/>	Smoking cessation programs
<input type="checkbox"/>	Information sessions on drug and alcohol abuse
<input type="checkbox"/>	Intramural sport leagues
<input type="checkbox"/>	Active living challenges (e.g. Get Fit; Active for Life)
<input type="checkbox"/>	On-site athletic programs or gym membership subsidies
<input type="checkbox"/>	On-site wellness centres
<input type="checkbox"/>	Employee Assistance Programs (EAP)
<input type="checkbox"/>	Programs/policies to prevent sexual harassment
<input type="checkbox"/>	Programs/policies to prevent discrimination
<input type="checkbox"/>	Ergonomically designed work stations
<input type="checkbox"/>	Healthy eating programs or options (e.g. healthy options in cafeterias or vending machines)
<input type="checkbox"/>	Paid personal days
<input type="checkbox"/>	Long-term paid leaves
<input type="checkbox"/>	Long-term unpaid leaves
<input type="checkbox"/>	Dental plan
<input type="checkbox"/>	Eye plan
<input type="checkbox"/>	Prescription drug plan
<input type="checkbox"/>	Chiropractor coverage
<input type="checkbox"/>	Mental health specialist coverage (e.g. psychologists, psychiatrists, etc.)
<input type="checkbox"/>	Physiotherapy coverage
<input type="checkbox"/>	Massage therapy coverage

Other health initiatives in your organization:

How effective are the health initiatives that you currently have in your organization:

- |   |   |
|---|---|
| <input type="checkbox"/> Very effective     | <input type="checkbox"/> Slightly ineffective |
| <input type="checkbox"/> Slightly effective | <input type="checkbox"/> Very ineffective     |

Please list any health initiatives that you do **NOT** currently offer, but would **WANT** to offer in the future:

**(2) EMPLOYEE RECOGNITION**

Please indicate which, if any, of the following employee recognition initiatives exist within your organization:

<input type="checkbox"/>	Employee awards (e.g. employee of the month; year)
<input type="checkbox"/>	Verbal appreciation/recognition
<input type="checkbox"/>	Merit Raises
<input type="checkbox"/>	Monetary bonuses based on performance
<input type="checkbox"/>	Non-monetary bonuses based on performance
<input type="checkbox"/>	Employee successes detailed in print and/or electronic documents (e.g. memos, newsletters, etc.)
<input type="checkbox"/>	Recognition ceremonies

Other employee recognition initiatives in your organization:

How effective are the employee recognition initiatives that you currently have in your organization:

- |   |   |
|---|---|
| <input type="checkbox"/> Very effective     | <input type="checkbox"/> Slightly ineffective |
| <input type="checkbox"/> Slightly effective | <input type="checkbox"/> Very ineffective     |

Please list any employee recognition initiatives that you do **NOT** currently offer, but would **WANT** to offer in the future:

**(3) GROWTH AND DEVELOPMENT**

Please indicate which, if any, of the following growth and development initiatives exist within your organization:

	Employee awards (e.g. employee of the month; year)
	Verbal appreciation/recognition
	Merit Raises
	Monetary bonuses based on performance
	Non-monetary bonuses based on performance
	Employee successes detailed in print and/or electronic documents (e.g. memos, newsletters, etc.)
	Recognition ceremonies

Other employee growth and development initiatives in your organization:

How effective are the employee growth and development initiatives that you currently have in your organization:

- |   |   |
|---|---|
| <input type="checkbox"/> Very effective     | <input type="checkbox"/> Slightly ineffective |
| <input type="checkbox"/> Slightly effective | <input type="checkbox"/> Very ineffective     |

Please list any employee growth and development initiatives that you do **NOT** currently offer, but would **WANT** to offer in the future:

**(4) WORK-LIFE BALANCE**

Please indicate which, if any, of the following growth and development initiatives exist within your organization:

	On-site or subsidized child-care programs
	On-site or subsidized elder-care
	Information provision for child-and/or elder care
	Personal leave options
	Career breaks (e.g. 3 years of salary spread over 4 years)

	On-site (or near-to-your-work) support services (e.g. food services options, athletic facilities, laundry mats, etc.)
	Flexible work scheduling (variable start/end times; choice of shifts)
	Tele-work (working from distance via email, fax or phone)
	Job sharing
	Part-time options

Other work-life balance initiatives in your organization:

How effective are the work-life balance initiatives that you currently have in your organization:

- |   |   |
|---|---|
| <input type="checkbox"/> Very effective     | <input type="checkbox"/> Slightly ineffective |
| <input type="checkbox"/> Slightly effective | <input type="checkbox"/> Very ineffective     |

Please list any work-life balance initiatives that you do **NOT** currently offer, but would **WANT** to offer in the future:

**(5) SAFETY**

Please indicate which, if any, of the following safety initiatives exist within your organization:

	Written safety policies
	Tracking safety related accidents
	Tracking safety-related “close calls”
	Confidential reporting system for safety violations
	Safety checklists (for procedures, equipments, etc.)
	Preventative equipment maintenance
	Safety committee
	Accident prevention
	Injury prevention (proper lifting)
	First aid training
	Workplace hazards identification
	Programs on violence in the workplace

Other safety initiatives in your organization:

--

How effective are the safety initiatives that you currently have in your organization:

- |   |   |
|---|---|
| <input type="checkbox"/> Very effective     | <input type="checkbox"/> Slightly ineffective |
| <input type="checkbox"/> Slightly effective | <input type="checkbox"/> Very ineffective     |

Please list any safety initiatives that you do **NOT** currently offer, but would **WANT** to offer in the future:

--

**(6) EMPLOYEE INVOLVEMENT**

Please indicate which, if any, of the following employee involvement initiatives exist within your organization:

<input type="checkbox"/>	Employee surveys
<input type="checkbox"/>	Joint employee-management committees
<input type="checkbox"/>	Employee committees and task forces
<input type="checkbox"/>	Employee meetings
<input type="checkbox"/>	One-on-one employee-supervisor meetings
<input type="checkbox"/>	Participation in job performance evaluations
<input type="checkbox"/>	Open Door Policy
<input type="checkbox"/>	Structured suggestion systems (e.g. suggestion boxes)
<input type="checkbox"/>	Peer review of employee performance
<input type="checkbox"/>	Profit Sharing
<input type="checkbox"/>	Self-managed work teams
<input type="checkbox"/>	Participative problem solving
<input type="checkbox"/>	Individual goal setting
<input type="checkbox"/>	Team-building activities
<input type="checkbox"/>	Employee involvement in equipment and technology purchase decisions

Other employee involvement initiatives in your organization:

--

How effective are the employee involvement initiatives that you currently have in your organization:

- |   |   |
|---|---|
| <input type="checkbox"/> Very effective     | <input type="checkbox"/> Slightly ineffective |
| <input type="checkbox"/> Slightly effective | <input type="checkbox"/> Very ineffective     |

Please list any employee involvement initiatives that you do **NOT** currently offer, but would **WANT** to offer in the future:

Appendix B

General PHW Measure

**Please indicate the extent that you would agree with the following statements about your organization:**

	1	2	3	4	5
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Employees are encouraged to take breaks during the work day.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization ensures that the amount of mental and emotional effort required by employees is manageable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are encouraged to maintain healthy lifestyles.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In the event of an employee life problem, the organization provides referral information for internal or external resources (e.g. grief counselling, mental health services, alcohol abuse) to deal with the problem.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, the organization promotes employee well-being.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization ensures employees are properly trained to use any necessary equipment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization takes the time to provide proper on-the-job safety training.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Safety is a high priority for the organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization is understanding and accommodating when employee life problems interfere with work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization is concerned about whether employees have enough time to get their work done with regular working hours.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	1	2	3	4	5
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
The organization encourages employees to take days off when needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization is willing to work around employees' responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization provides flexible working arrangements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization is concerned about whether employees' workload is interfering with their family life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, the organization encourages employee work-life balance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization makes employees feel rewarded and appreciated for their efforts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are provided with positive feedback on work well done.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees who go above and beyond the call of duty (e.g., helping others workers, staying after hours to complete a task) are recognized.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization acknowledges employee personal milestones (e.g. retirement, anniversaries, birthdays)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are provided with fair monetary compensation for their work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, the organization recognizes the contributions of employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are provided with opportunities to gain new knowledge and skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization provides meaningful work (i.e. ensures employees are adequately challenged )	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization allows employees to take on new responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization has little tolerance for employee mistakes (R)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are encouraged to ask questions as frequently as possible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	1	2	3	4	5
	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Overall, the organization values the growth and development of its employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are encouraged to participate in decision-making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are consulted regarding decisions and changes that affect their work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are encouraged to participate in determining their job responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are asked to provide feedback/suggestions regarding the workplace	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization grants decision making authority to individual employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are encouraged to set their own goals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization responds to feedback provided by employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization makes it clear to employees how to achieve promotions to get ahead	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The motives of the organization are clear to employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization communicates its mission to employees.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization communicates regularly and clearly with employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The organization ensures that coworkers have positive relationships with one another	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, the organization provides a supportive atmosphere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are treated with dignity and respect.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employees are treated fairly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Saint Mary's University

## Certificate of Ethical Acceptability of Research Involving Human Subjects

This is to certify that the Research Ethics Board has examined the research proposal or other type of study submitted by:

<b>Principal Investigator:</b>	<b>RANDELL, Krista</b>
<b>Faculty Supervisor:</b>	<b>DAY, Arla</b>
<b>Name of Research Project:</b>	<b>Safe &amp; Healthy Workplaces: A Survey of the Prevalence, Types and Outcomes of Comprehensive Workplace Wellness Practices</b>
<b>REB File Number:</b>	<b>09-027</b>

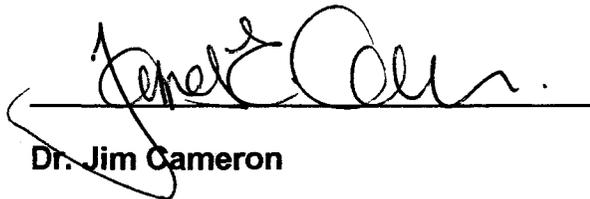
and concludes that in all respects the proposed project meets appropriate standards of ethical acceptability and is in accordance with the Tri-Council Policy Statement on the Conduct of Research Involving Humans.

Please note that approval is only effective for one year from the date approved. If your research project takes longer than one year to complete, submit Form #3 (Annual Report) to the REB at the end of the year and request an extension. You are also required to submit Form #5 (Completion of Research) upon completion of your research.

**Date:**

5 March 2009

**Signature of REB Vice Chair:**

  
Dr. Jim Cameron

Appendix D

Remaining Items After Final Principal Components Analysis

Factor	Items
Factor 1	<ol style="list-style-type: none"> <li>1. The organization is understanding and accommodating when employee life problems interfere with work.</li> <li>2. Employees are encouraged to take days off when needed.</li> <li>3. The organization is willing to work around employees responsibilities outside of work.</li> <li>4. The organization provides flexible working arrangements.</li> <li>5. The organization is concerned about whether employees' workload is interfering with family life.</li> <li>6. Overall, the organization encourages work-life balance.</li> <li>7. The organization provides meaningful work (i.e., tries to ensure employees are adequately challenged).</li> <li>8. The organization allows employees to take on new responsibilities.</li> <li>9. The organization has little tolerance for employees mistakes.</li> <li>10. Employees are encouraged to participate in decision-making.</li> <li>11. Employees are encouraged to participate in determining their job responsibilities.</li> <li>12. Employees are asked to provide feedback and suggestions regarding the workplace."</li> <li>13. The organization grants decision making authority to individual employees.</li> <li>14. Employees are encouraged to set their own goals.</li> </ol>
Factor 2	<ol style="list-style-type: none"> <li>1. In the event of an employee life problem, the organization provides referral information resources (e.g., grief counseling, mental health services, alcohol abuse) to deal with the problem.</li> </ol>

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**Factor 2**

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2. Overall, the organization promotes employee well-being.
3. The organization ensures that employees are properly trained to use any necessary equipment.
4. The organization takes the time to provide employees proper on-the-job safety training.
5. Overall, safety is a high priority for the organization.

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**Factor 3**

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1. The organization makes employees feel rewarded and appreciated for their efforts.
2. Employees are provided with positive feedback on work well done.
3. Employees who go above and beyond the call of duty (e.g., helping other employees, staying after hours to complete a task), are recognized.
4. Overall, the organization recognizes the contributions of employees.
5. The motives of the organization are clear to employees.
6. The organization communicates regularly and frequently with employees.
7. The organization communicates its mission to employees.
8. The organization ensures that coworkers have positive relationships with one another.
9. The organization ensures that employees have positive relationships with supervisors/management.
10. Employees are treated with dignity/respect.