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## Organizational Wellness Programs: Who Participates and Does it Help?

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Organizational Wellness Programs: Who Participates and Does it Help?

By

Justin Dumond

A Thesis Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Arts

In

Industrial/Organizational Psychology

Minnesota State University, Mankato

Mankato, Minnesota

May 2012

Organizational Wellness Programs: Who Participates and Does it Help?

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## Abstract

## ORGANIZATIONAL WELLNESS PROGRAMS: WHO PARTICIPATES AND DO THEY HELP?

DUMOND, JUSTIN M., M.A. Minnesota State University, Mankato, 2012

Several research questions exist concerning the effectiveness of employee wellness programs. Do Theory of Reasoned action components such as health attitudes and intentions lead to wellness program involvement? Does wellness program involvement moderate the relationships between occupational stress, turnover, and job performance, such that wellness involvement mitigates the negative impact of occupational stress? Additionally, does wellness involvement moderate the relationships between work/life imbalance, turnover, and job performance, such that wellness involvement mitigates the negative impact of work/life imbalance? Data from 10,430 employees of an organization with an optional wellness program was analyzed. Hypotheses relating to TRA and the work/life imbalance-job performance relationship were supported. Components of TRA predicted wellness participation and behavioral intentions mediated the relationship between attitudes and involvement. Wellness involvement moderated the relationship between work/life imbalance and job performance, such that employees who experienced work/life imbalance and were involved in the wellness program outperformed other employees. Additionally, the turnover hypotheses had striking results. Out of the 4,265 wellness program participants, only one instance of turnover occurred within a year of the wellness program's initiation. The lack of variance in turnover of wellness participants prohibited statistical analyses, yet the results suggest a main effect of wellness on

turnover. Implications for the promotion of wellness participation, work/life imbalance interventions, and retention strategies are discussed as well as limitations and implications for future research.

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## CHAPTER I

### INTRODUCTION

Occupational stress threatens the quality of life of employees (Michailidis & Georgiou, 2005). Moreover, it costs employers in terms of turnover and lowered job performance (Babakus, Yavas & Ashill, 2009; Barrick, Mount, & Strauss, 1994; Blonk, Broersen, & Frings-Dresen, 2004; DeCroon, Sluiter, Kim & Stoner, 2008). Additionally, an insidious subset of occupational stress, work/life imbalance, can negatively affect both work and personal success (Brough, O’Driscoll, 2010; Emslie & Hunt, 2009). To counteract these concerns, employee wellness programs attempt to improve employees’ quality of life by providing health assessments and guidance on health promotion behaviors (Lindahl, 2011; Machen, Cuddihy, Reaburn, & Higgins, 2010). Although research suggests that health promotion behaviors mitigate the effects of stress (Anshel, Brinthead, & Kang, 2010; Pomaki, Supeli, & Verhoeven, 2007), several research questions remain concerning employee wellness programs. First, what predicts participation in wellness programs? Second, does wellness program involvement benefit individual employees and their organization?

#### *Wellness Programs*

“Employee wellness program’ is an umbrella term that can encompass health promotion programs in addition to wellness policy initiatives. Health promotion programs typically focus on reducing health-risks and increasing health-promotion behaviors relating to physical fitness, nutrition, health education, and stress management.

Health professionals provide educational material and trainings on these topics and introduce and sustain behavioral action plans (Brewer, Gallo, & Smith, 2010; Dhobale, 2009). On the other hand, wellness policy initiatives do not focus on individuals' trainable behaviors but on the workplace's physical and social influences on health-related behaviors. Wellness policy initiatives encompass interventions based on structural factors such as facilities and benefits plans, as well as social factors such as workplace norms and corporate culture (Golaszewski, Allen, Edington, 2008). Health promotion programs and wellness policy initiatives are often used in tandem to support employees to achieve their optimal state of being. Additionally, health promotion programs and wellness policy initiatives assist employees who require little to no medical and insurance fees to remain low-cost for their organizations (Fitch & Pyenson, 2008).

However, employee wellness programs can be tied with many other types of employee supportive programs such as employee assistance programs, clinical prevention services, and disease management programs depending on employee needs. Employee assistance programs provide counseling and therapeutic services for employees experiencing a range of psychological problems such as depression (Liu, 2011), and also non-health-related services for employees experiencing financial or legal difficulties. Clinical prevention services such as responsible drinking and smoking cessation courses can be used to intervene for high-risk individuals (Ames & Bennett, 2011; Sorensen & Barbeau, 2004). Disease management programs use targeted interventions to identify and help high-cost and chronically ill employees such as those who suffer from heart disease or diabetes (Swartz, Day, Wildenhaus, Silberman, Wang, & Silberman, 2010).

Despite the fact that employee wellness programs can refer to many distinct interventions, there are four best practices that an effective wellness program should exhibit (Lindahl, 2011; Machen, Cuddihy, Reaburn, & Higgins, 2010). First, multi-level management buy-in needs to be obtained and a steering committee should be established. Next, a comprehensive needs assessment should be conducted. This can include surveys to establish organizational readiness for a wellness program as well as confidential health assessments in order to determine what health needs exist. Third, the wellness program needs to have targeted subsequent interventions designed to fulfill those needs. Fourth and finally, the program needs to be evaluated based on predetermined goals and metrics to ensure effectiveness.

Wellness programs are evaluated on multiple levels with a variety of tools. Typically, utility analyses are conducted to evaluate whether there has been a reduction in health risks, medical, and insurance costs (Benavides & David, 2010; Lategan, Lourens, & Lombard, 2011; Malouf, 2011; Phillips, 2009; Turner, 2011; Williams, & Day, 2011) as well as a reduction in absenteeism/presenteeism rates (Mills, Kessler, Cooper, & Sullivan, 2007; Harte, Mahleu, Mallett, Norville, & Vanderwerf, 2011; Terry & Xi, 2010; Taylor, 2011). These utility analyses are conducted to determine if the financial gains of wellness programs exceed their costs. However, deeper levels of analysis such as stakeholder analyses are conducted to ascertain if the program achieved other predetermined organizational metrics for success (Chapman, 2011; Zoller, 2004). Additionally, common intervention evaluation measures can be used. For example, program satisfaction and basic participation rates can evaluate any type of organizational intervention, including employee wellness programs (Lindahl, 2011). However, these

common evaluation measures fail to capture further organizational benefits such as the reduction of turnover and the increase in job performance.

### *Wellness Program Participation*

It seems axiomatic that in order for a wellness program to be effective, people must actually participate in the program. However, understanding wellness program participation is more complex than calculating basic participation rates. Wellness evaluation should include not only *how much* participation there is, but also *who* participates in wellness programs and *why* they choose to participate. The theory of reasoned action (TRA) provides theoretical support to why some employees choose to participate in a wellness program while others do not. TRA suggests that behavioral intention is the result of attitudes and subjective norms. *Attitudes* refer to personal beliefs about a particular behavior weighted by a personal evaluation of these beliefs. For example, one may believe that participating in a wellness program would improve one's health and that participating in a wellness program would cost a considerable amount of time. If the first belief is weighted more heavily than the second, then one is more likely to intend to participate in a wellness program. *Subjective norms* refer to perceived beliefs of others weighted by the importance of each individual. For example, some friends may believe that a wellness program is a waste of time but one's spouse may believe that healthy behaviors are important. If one's spouse is weighted more heavily than one's friends, then one is more likely to intend to participate in a wellness program. *Behavioral intentions*, the result of both attitudes and subjective norms, predict one's actual behavior. Thus if one intends to participate in a wellness program, one is more likely to actually participate in a wellness program (Fishbein & Ajzen, 1975).

TRA has received considerable empirical support in predicting health promotion behaviors. TRA has demonstrated that attitudes towards health promotion behaviors lead to health-related behavioral intentions, which in turn lead to actual health promotion behaviors (Mullan & Westwood, 2010). TRA has helped researchers predict a multitude of health promotion behaviors, such as condom usage and safer sex (Fife-Schaw & Abraham, 2009; Fisher, Fisher & Rye, 1995; Xiao, Palmgreen, Zimmerman, & Noar, 2010), obtaining cancer prevention information (Ross, Kohler, Grimley, & Anderson-Lewis, 2007), participating in medical testing trials (Kafaar, Kagee, Lesch, & Swartz, 2007), responsible drinking practices (Glassman, Braun, Dodd, Miller, & Miller, 2010), and establishing regular exercise routines (Conner, Sandberg, Norman, 2010).

Additionally, TRA predicts when medical professionals will provide sexual education and other preventative education services (Millstein, 1996; Mullan & Westwood, 2010).

Many different personal beliefs are incorporated in the wellness program participation decision. Middlestadt, Sheats, Geshnizjani, Sullivan, and Arvin (2011) assessed the components of TRA related to participation in a wellness program at a Midwestern university. Two-hundred and seventy-nine full-time support staff employees were surveyed about a hypothetical employee wellness program to assess the underlying constructs related to wellness program behavioral intentions. Open ended questions were asked to identify the most important and salient beliefs to the participants. Attitudes, social norms, and behavioral intentions were assessed as well as health-related information including age, nutrition, and exercise information. Contrary to expectations, health-promotion behaviors such as nutrition and exercise information did not predict wellness program behavioral intentions, indicating that people with both healthy and

unhealthy behaviors intend to be involved in wellness programs. Instead attitudes toward wellness programs, subjective norms, and age predicted behavioral intention. Therefore, people with positive attitudes towards wellness programs intended to participate, people who perceived important social referents supporting their decision intended to participate, and younger employees intended to participate. Of the three significant variables, attitudes predicted the most amount of variance in wellness program behavioral intention and perceived social norms predicted the second-most amount of variance in wellness program behavioral intention.

Many attitudes related to health, behavior, psychological, and work consequences were supplied by participants. Health-related attitudes included that a wellness program would “help me lose weight”, “improve my health”, “improve my physical fitness”, and “improve my heart health.” Behavior-related attitudes included that a wellness program would “help me exercise”, “help me take part in smoking cessation”, and “help me eat better.” Psychological consequences included “reduce my stress”, “make me feel better”, “give me energy”, and “improve my mental health.” Work consequences included “help me be more productive at work” and “help me form bonds with coworkers.” Of all these wellness program attitudes, only the health-related attitudes and “reduce my stress” predicted whether someone would intend to participate in a wellness program (Middlestadt et al., 2011).

Several attitudes influenced whether someone would chose not to participate. The most common response was “will take too much time” with 20% of all who intended not to participate supplying this attitude. Additionally, “will cost a lot”, “will make me sore

or injured”, and “may lead me to fail” were supplied by multiple participants (Middlestadt et al., 2011).

University employees were also asked to identify salient individuals who approve of their decision and their relationship with those individuals. From this information, we can assess the subjective norms relevant to employee wellness programs. Subjective norm referents who significantly lead to positive behavioral intention were bosses, coworkers, and family members not one’s spouse. On the other hand, employees’ spouses, friends, higher-level administration personnel, and health care providers were not significant. Similarly, for employees who did not intend to participate in a wellness program, bosses, coworkers, and family members not one’s spouse were the most important supporters of their decision. This suggests that the people one considers when making a wellness program participation decision are the people one normally interacts with at work as well as one’s biological family. People one normally interacts with at work are expected to be the people one would interact with in the wellness program. Additionally, biological family members often share the same genetically-based health issues. Both groups are relevant when one considers wellness program involvement (Middlestadt et al, 2011). In the current study, it is expected that these attitudes and subjective norms identified by Middlestadt and colleagues may also be a factor in the behavioral intentions of participants.

As stated earlier, many wellness programs begin with an initial wellness screening. Research has shown that attitudes and behavioral intentions are important to participation in this initial needs assessment. Cooke and French (2008) conducted a meta-analysis on medical screening program attendance. Consistent with TRA, medical

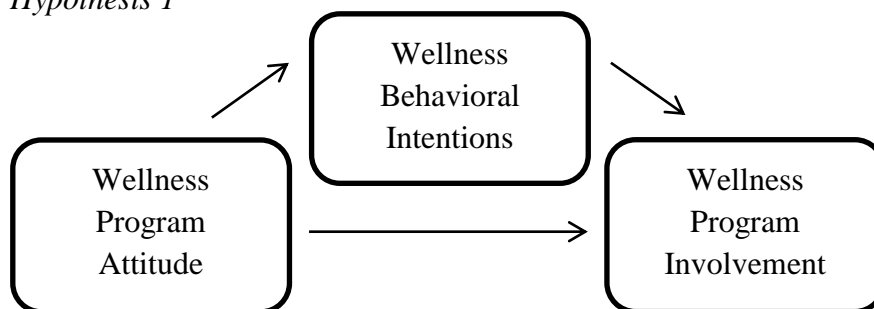
screening behavioral intentions mediated the relationship between medical screening attitudes and medical screening program attendance. Essentially, the authors found that attitudes towards medical screening programs lead to behavioral intentions. Behavioral intentions in turn lead to medical screening program attendance. Given the considerable empirical support for TRA in terms of health promotion behaviors, it is hypothesized that the variables predictive of medical screening attendance will also predict wellness program participation and further involvement.

**H1:** Employee wellness program-based behavioral intentions will mediate the relationship between attitudes towards the wellness programs and wellness program involvement.

Please see Figure 1 for a representation of hypothesis 1.

Figure 1

*Hypothesis 1*



*Employee Wellness and Occupational Stress*

For individuals, a key benefit of employee wellness is a reduction in stress. Stress refers to the body's nonspecific reaction to the demands placed on it or its reaction to the discrepancy between what an individual needs or desires and whether they will receive what they need. Specifically, occupational stress is the physiological and psychological



response an individual experiences to the challenges of his or her working environment (Michailidis & Georgiou, 2005). Employee wellness programs aim not only to promote physical health but also to promote psychological health. This is especially important given the negative impact of stress on a variety of organizational variables such as voluntary turnover, job performance, and involuntary turnover.

First, occupational stress can increase voluntary turnover. Kim and Stoner (2008) found that occupational role-related stress indirectly contributes to turnover intentions. Four hundred and seventy-eight social workers completed a questionnaire about various forms of occupational stress and turnover intentions. The authors found that burnout mediated the relationship between role stress and turnover intentions. Thus, occupational stress lead to strains such as exhaustion, cynicism, and lowered professional efficacy. These strains in turn lead to the social workers' intentions to leave their organization. According to TRA, turnover intentions should lead to voluntary turnover (Fishbein & Ajzen, 1975). Occupational stress has also been linked to turnover intentions in a banking sample (Babakus, Yavas, & Ashill, 2009)

The relationship between occupational stress, strain, and turnover intentions has also been linked to actual voluntary turnover. De Croon, Sluiter, Blonk, Broersen, and Frings-Dresen (2004) analyzed the consequences of stressful work in 1,123 truck drivers. The truck drivers were surveyed again two years after the initial analysis to provide longitudinal turnover data. All forms of occupational stress that were measured at time 1 led to strain. The strain resulting from the occupational stress in turn increased the likelihood of a truck driver voluntarily leaving his/her company by time 2. It is clear that

the outcomes of occupational stress may exceed turnover intentions and also include voluntary turnover itself.

Second, occupational stress has also been shown to reduce job performance. Babakus, Yavas, and Ashill (2009) analyzed the occupational stress-job performance relationship among 530 frontline bank employees including ‘customer service operators’ and ‘banking consultants’. In both levels of bank employees, an increase in occupational stress lowered the self-reported job performance of bank employees. Consistent with the voluntary turnover literature, occupational stress also increased turnover intentions in this sample.

Third, occupational stress and poor job performance can also lead to involuntary turnover (Barrick, Mount, & Strauss, 1994). Involuntary turnover can be the result of a variety of reasons including illness, family responsibilities, early retirement, and downsizing or systematic reduction of workforce. However, involuntary turnover decisions can be made due the organization’s or supervisor’s perception of low job performance. Barrick, Mount, and Strauss analyzed data from 227 sales professionals in the midst of an organization’s downsizing. Eighteen months after performance data was collected, turnover information was compiled. Supervisor ratings of performance and sales volume were negatively correlated with involuntary turnover, indicating that as supervisor ratings increased turnover decreased. Additionally, voluntary turnover intentions also lead to involuntary turnover. Because both voluntary turnover intentions and lowered job performance are consequences of occupational stress, one can suggest that involuntary turnover is also a consequence of occupational stress.

Wellness programs provide a unique opportunity to combat occupational stress. Healthy behaviors encouraged by wellness programs can be used as a coping strategy and offset the negative outcomes of employees' occupational stress. Pomaki and colleagues (2007) found that personal health promotion behaviors moderate the relationship between a specific occupational stressor, role conflict, with emotional exhaustion and depressive symptoms. The authors surveyed 221 physicians on seven specific health promotion behaviors. The seven health promotion behaviors included sleeping seven to eight hours a night, not smoking, regularly eating breakfast, not snacking between meals, having no more than two alcoholic drinks a day, exercising regularly, and maintaining a good weight.

These seven health promotion behaviors moderated the relationship between role conflict and emotional exhaustion such that doctors who reported many health promotion behaviors experienced less emotional exhaustion when presented with high role conflict than doctors who reported less health promotion behaviors. Similarly, health promotion behaviors moderated the relationship between role conflict and depressive symptoms such that doctors who reported many health promotion behaviors experienced fewer depressive symptoms when presented with high role conflict than doctors who reported fewer health promotion behaviors. Essentially, medical doctors who consistently maintained healthy behaviors experienced fewer of the negative consequences of occupational stress despite the fact that they experienced the same amount of stress as their colleagues who did not consistently maintain healthy behaviors. This suggests that health promotion behaviors can be a preventive measure against a variety of different occupational stress outcomes (Pomaki, Supeli, & Verhoeven, 2007). Given that health

promotion behaviors moderate the relationship between occupational stress and the negative outcomes of stress, it is expected that wellness involvement will also moderate the relationship between occupational stress and its negative outcomes.

However, wellness programs can assist employees not only by mitigating the strain they suffer but by reducing the amount of stress they initially experience. The Disconnected Values Model posits that individuals experience stress when there is a discrepancy between the values they believe in and the habits they exhibit. Wellness program participants see a discrepancy between their health needs and their health promotion behaviors. They participate in wellness programs to close the gap between their beliefs and their behaviors (Anshel, Brinthaup, & Kang, 2010).

The Disconnected Values Model (DVM) provides an additional benefit to employee wellness programs beyond the coping literature. According to the coping literature, employees who engage in healthy behaviors will experience the same amount of stressors as employees who do not engage in healthy behaviors, yet those who engage in healthy behaviors will experience fewer strains or negative consequences of stress. According to the DVM, employees who maintain healthy behaviors will experience fewer stressors than employees who do not maintain healthy behaviors. Given that employees with healthy behaviors will experience fewer stressors than employees without healthy behaviors, they will also experience fewer strains (Anshel, Brinthaup, & Kang, 2010). Consistent with DVM, high overall health is associated with low stress and higher quality of life (Clark, Warren, Hagen, Johnson, Jenkins, Werneburg, & Olson, 2011).

**H2A:** Wellness involvement will moderate the relationship between occupational stress and voluntary turnover, such that there will be a stronger positive relationship between stress and voluntary turnover among employees who are less involved in the wellness program.

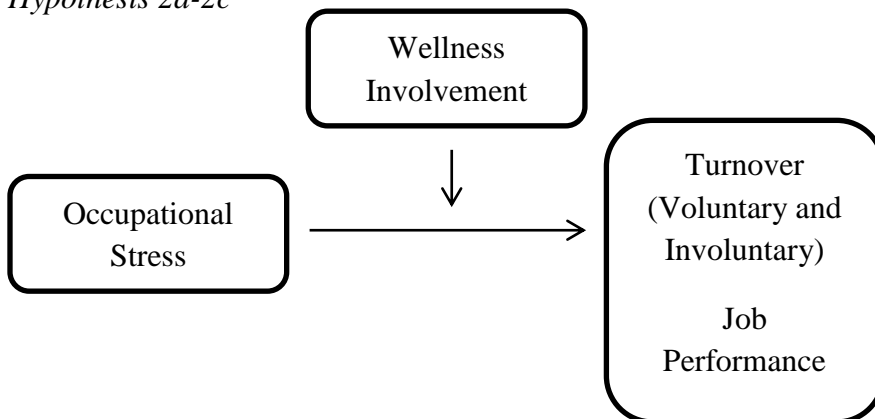
**H2B:** Wellness involvement will moderate the relationship between occupational stress and involuntary turnover, such that there will be a stronger positive relationship between stress and involuntary turnover among employees who are less involved in the wellness program.

**H2C:** Wellness involvement will moderate the relationship between occupational stress and job performance, such that there will be a stronger negative relationship between stress and performance among employees who are less involved in the wellness program.

Hypotheses 2a through 2c are represented in Figure 2.

Figure 2

*Hypothesis 2a-2c*



### *Employee Wellness and Work/life Imbalance*

A specific source of occupational stress is the interference between personal lives and work lives also known as work/life imbalance. According to the work/life imbalance literature, both our personal and work lives provide unique sources of fulfillment and unique role demands. Satisfied personal and work lives with very little conflict between the two domains are referred to as a balance between work and life. However, these separate roles can mix and induce stress. Occupational responsibilities often impede personal aspirations. An example of this work-to-life interference is when an individual cannot socialize with friends because of his or her long work hours. Additionally, personal obligations can inhibit work lives. For example, life-to-work interference can occur when an employee misses an important client meeting because he or she was on a date. Both types of work/life imbalance can have a negative impact on employees (Emslie & Hunt, 2009).

Often the literature on work/life imbalance narrowly defines the construct as work/family imbalance (Emslie & Hunt, 2009). In particular, the field has focused on the personal care responsibilities typically held by women and how these personal responsibilities are impacted by women's work lives. As a consequence, the field has recommended instituting family-friendly policies and providing flexibility to those with child-care responsibilities, an example of wellness policy initiatives targeting the specific work/life imbalance needs of their employees (Eikhof, Warhurst, & Haunschild, 2007; Huang, Lawler, & Lei, 2007). However, much can be gained by broadening the construct to include other forms of work/life imbalance (Dex & Bond, 2005; Kalliath & Brough, 2008). By utilizing a holistic view of work/life imbalance, research can be applied to

employees with unconventional personal lives and additional community roles (Kinman & Jones, 2007).

Like occupational stress, work/life imbalance has been linked to negative outcomes for individuals and organizations. First, work/life imbalance predicts negative attitudes towards jobs, low job satisfaction (Virick, Lilly, & Casper, 2007), and turnover intentions. Huang, Lawler, and Lei (2007) surveyed 600 auditors, who are white-collar professionals with highly desirable skill sets and many opportunities to change employers. In these coveted professionals, work/life imbalance was strongly correlated with turnover intention. Not only does work/life imbalance lower employees' commitment to their organization, it also lowers their commitment to their individual careers. Low career commitment also predicted voluntary turnover intentions.

Second, work/life imbalance is associated with low job performance. Brough and O'Driscoll (2010) discuss several organizational interventions aimed at alleviating work/life imbalance that also increased productivity. Two separate organizations used alternate work schedules as an intervention for work/life imbalance concerns only to find an increase in individual and organizational performance. Moreover, an intervention at Xerox found that the corporate culture norm of working long, unpaid hours was detrimental to both work/life imbalance and productivity.

However, very little quantitative research has been conducted on work/life imbalance and employee wellness. Work/life imbalance, as a subset of overall occupational stress, may have been indirectly measured in numerous quantitative occupational health studies. However, work-family conflict has been identified by qualitative analysis of an ineffective wellness program. Zoller (2004) interviewed

employees of an automotive manufacturer after a recreation program was deemed ineffective. This wellness program did not follow the best practices of the field (Lindahl, 2011; Machen et al., 2010) as the needs analysis information was not used in the program design. Therefore, the wellness program did not target the specific needs of its employees. In this organization, the wellness program consisted solely of an exercise center. However, because the employees endured physically draining blue-collar work, very few employees participated and those that did participate did not become healthier.

Of the employees who chose not to participate, work/family conflict was a concern. Three women expressed guilt that the recreation program would take time away from their family. As children were not allowed to participate in this recreation program, the program itself became a source of work-family conflict. It is unclear if this wellness program was not successful because of its violation of best practices or because the mitigation of work/life imbalance is untenable for wellness programs (Zoller, 2004).

While Zoller uncovered discouraging information, wellness programs may still have the potential to mitigate the negative impact of stress related to work/life imbalance. For bank employees, work/life imbalance has been found to be correlated with other forms of occupational stress (Michailidis & Georgiou, 2005). Additionally, wellness programs provide coping strategies to employees which not only buffer the negative impact of occupational stress but improve employees' overall health (Pomaki et al., 2007) as well as reduce the amount of stress they experience (Anshel, Brinthaup, & Kang, 2010). Because employees who experience work/life imbalance also experience other forms occupational stress, assistance in occupational stress would still help employees experiencing work/life imbalance. Moreover, because biological family members are



important supporters in the instances of wellness program participation decisions (Middlestadt et al, 2011); wellness program involvement may not be a form of work-to-family interference in a well-constructed wellness program which follows best practices. For these reasons, wellness involvement is hypothesized to moderate the relationship between work/life imbalance and the negative outcomes of stress.

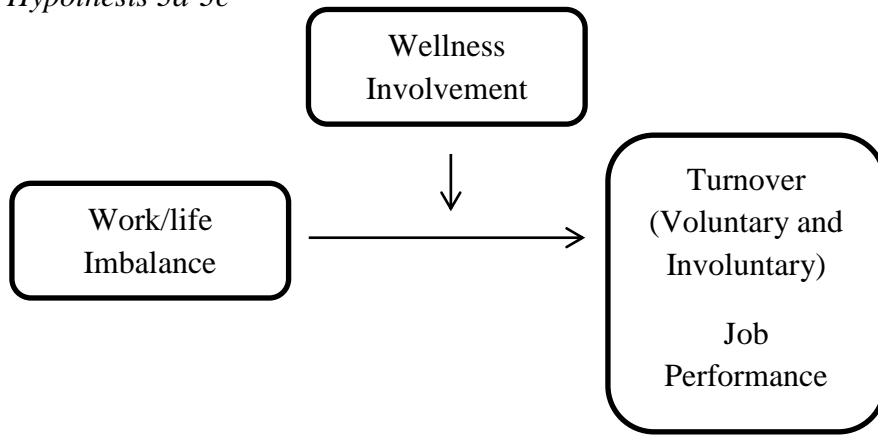
**H3A:** Wellness involvement will moderate the relationship between work/life imbalance and voluntary turnover, such that there will be a stronger positive relationship between work/life imbalance and voluntary turnover among employees who are less involved in the wellness program.

**H3B:** Wellness involvement will moderate the relationship between work/life imbalance and involuntary turnover, such that there will be a stronger positive relationship between work/life imbalance and involuntary turnover among employees who are less involved in the wellness program.

**H3C:** Wellness involvement will moderate the relationship between work/life imbalance and job performance, such that there will be a stronger negative relationship between work/life imbalance and performance among employees who are less involved in the wellness program.

Hypotheses 3a through 3c are represented in Figure 3.

Figure 3

*Hypothesis 3a-3c*

## CHAPTER II

### METHOD

#### *Participants*

Ten thousand, four hundred and thirty employees of a Midwestern Bank completed an employee engagement survey. Subsequently, all employees were given the opportunity to be involved in an employee wellness program over the course of one year. One hundred and sixty-seven cases were excluded from analyses because the employees left the organization prior to median date for registration at the wellness consultants' website. In order to be involved in the wellness program interventions, employees must have first registered on the website. Therefore the date by which employees registered on the wellness consultant's website is the earliest indication available of an individual's decision to participate in the wellness program. Thus, individuals who quit, were fired, or retired prior to the median date of website registration could not be reasonably expected to have made a wellness participation decision. The median date for website registration was 20 days after the first registration.

Of the remaining 10,263 participants, 6,674 of the participants were women (65%) and 3,589 were men (35%). In terms of ethnicity, 8,895 were White (86.7%), 858 were Black (8.4%), 208 were Asian (2%), 151 were Hispanic or Latino (1.5%), 89 were multi-ethnic (0.9%), 20 were American Indian or Alaska Native (0.2%), and 11 were Native Hawaiian/Other Pacific Islander (0.1%).

In terms of work location, most employees worked in Ohio or its surrounding states, with 7,339 participants working in Ohio (71.5%). Additionally, 1,382 participants worked in Michigan (13.5%), 546 worked in Pennsylvania (5.3%), 482 worked in Indiana (4.7%), 306 worked in West Virginia (3%), and 150 participants worked in Kentucky (1.5%). Moreover, 58 employees in the sample (0.5%) worked in other various states throughout the United States.

Of the total sample, 5,781 registered at the wellness consultant's website (56.3%). Two initial assessments, an online health assessment and a medical screening, were available to employees after website registration. At this time, 4,466 employees opted to take an initial health assessment (43.5%). Only 2,141 employees opted to undergo the medical screening (20.9%). Much like the total sample, wellness program participants were predominately women (65%), White (86.9%), and worked in Ohio (74.8%).

### *Measures*

Participants completed an annual engagement survey with items on wellness attitudes (2 items), wellness program behavioral intentions (1 item), occupational stress (4 items), and work/life imbalance (1 item). Cronbach's alphas for the four occupational stress items were .677. These items were designed by the authors of the survey to assess what they believed were critical features of employee and wellness success. Additional constructs assessed via the engagement survey included customer service, ethics and integrity, and turnover intentions. Item responses were on a 5-point Likert-type scale in which 1 represented "strongly disagree" and 5 represented "strongly agree." Occupational stress and work/life imbalance items were recoded so that higher responses indicated more occupational stress or work/life imbalance.

Please refer to Table 1 for a list of all relevant items, means, and standard deviations. Neutral means for wellness attitudes and behavioral intentions indicated a mix of ambivalent and favorable attitudes and behavioral intentions towards the wellness program. The low means for the stress items indicate that overall participants did not report much occupational stress or work/life imbalance.

Table 1

*Measures, means, and standard deviations*

Hypothesis	Construct	Item	<i>M</i>	<i>SD</i>
1	Wellness Attitude	Wellness programs are an important benefit to employees.	3.98	0.79
1	Wellness Attitude	My organization is committed to the health and well-being of its employees.	3.79	0.84
1	Wellness Program Behavioral Intention	I intend to participate in my organization's wellness program.	3.60	0.92
2	Occupational Stress	How satisfied are you with the amount of work you are expected to do?	2.37	0.92
2	Occupational Stress	I am doing a good job handling all of the changes at my organization.	1.90	0.69
2	Occupational Stress	Overall, I am feeling a lot of stress at work.	1.97	0.69
2	Occupational Stress	On most days I am able to make good progress on my work.	3.24	1.09
3	Work/life Imbalance	How satisfied are you with the level of balance between your work and personal life?	2.40	0.92

Over the course of the following year, employees were given the opportunity to be involved in an employee wellness program. This program included the registration, health assessment, and medical screening discussed above. Additionally, employees could participate in a variety of wellness interventions. An example of an employee wellness program intervention is the step initiative. If the initial health assessment concluded that an employee could use help bolstering their exercise routine, they had the option to be involved in the step initiative. Every employee in the step initiative wore a pedometer for a month. After the month's completion, whichever employee stepped the most in their banking location received a small prize.

The degree of wellness involvement was measured by a point system in which employees received 25 points for every health intervention they participated in. Thus, an employee who did not take part in the wellness program would have received zero points. An employee who took the initial health assessment but was not involved in any subsequent interventions would have received 25 points. An employee who took the initial medical screening and was also involved in a subsequent health initiative would receive 50 points. Please see Table 2 for the distribution of wellness involvement. For the employees involved in the wellness program, the average number of interventions was 6.25.

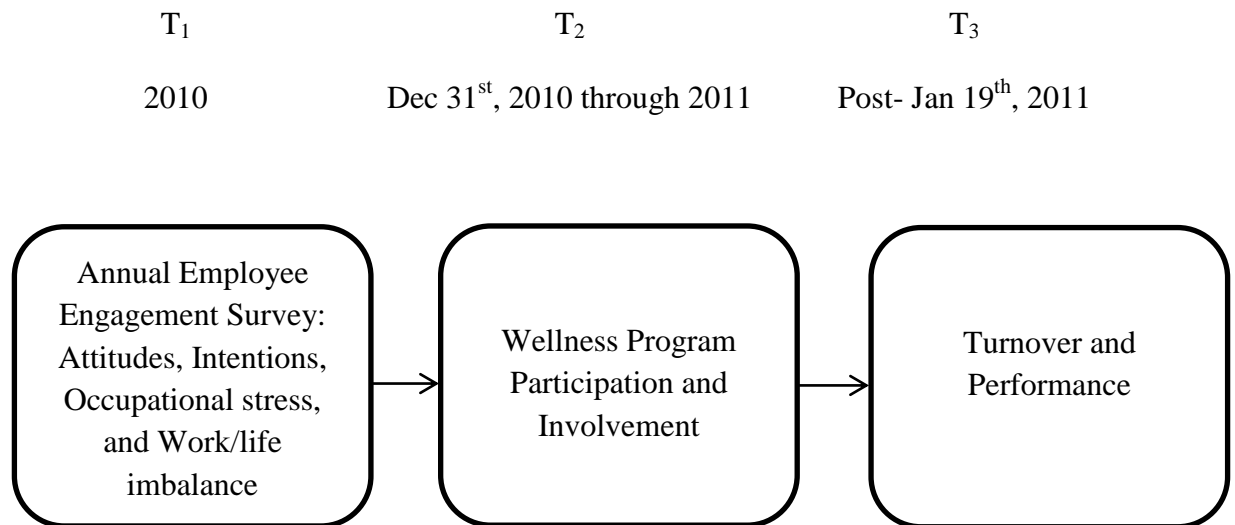
Table 2

*Distribution of Wellness Involvement*

Number of Interventions	Frequency	Percent
0	5526	53.8%
1	248	2.4%
2	224	2.2%
3	39	0.3%
4	911	8.9%
5	334	3.3%
6	608	5.9%
7	482	4.7%
8	1020	9.9%
9	541	5.3%
10	218	2.1%
11	78	0.8%
12	25	0.2%
13	9	0.0008%

Archival data on voluntary and involuntary turnover after the initiation of the wellness program was analyzed. Overall, there were 535 cases of involuntary turnover and 1,053 cases of voluntary turnover for a total turnover rate of 15.5%. In December 2011, 8,116 supervisor ratings of job performance were collected on a 4-point scale in which 1 represented “Developing-Learning,” 2 represented “Fully Competent,” 3 represented “Outstanding,” and 4 represented “Excellent.” The mean score for job performance was 2.77 suggesting overall high reported job performance. Please see Figure 4 for the data collection timeline.

Figure 4

*Data collection timeline*



## CHAPTER III

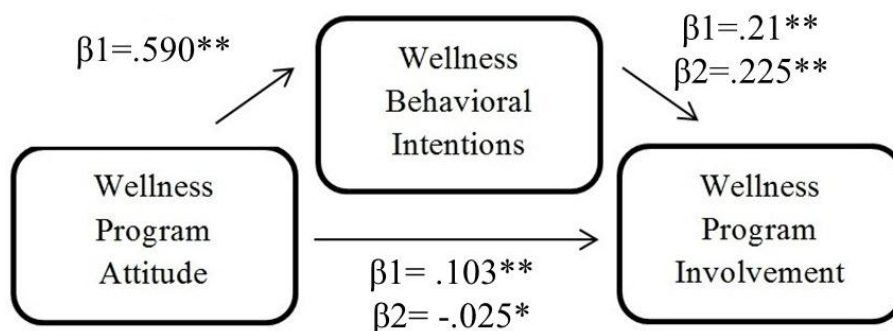
### RESULTS

#### *Hypothesis 1*

For hypothesis 1, a mediation analysis was conducted to determine if wellness behavioral intentions mediated the relationship between wellness program attitude and wellness program involvement. To test hypothesis 1, data was analyzed according to the steps outlined by Baron and Kenny (1986). A simple linear regression indicated that wellness program attitudes significantly predicted wellness involvement. Next, a simple linear regression determined that wellness program attitudes significantly predicted wellness behavioral intentions. Third, a simple linear regression indicated that wellness behavioral intentions significantly predicted wellness program involvement. Fourth and finally, wellness program involvement was submitted to a multiple regression analysis where wellness attitudes and behavioral intentions were entered as independent variables. Wellness behavioral intentions partially mediated the relationship between wellness program attitudes and wellness program involvement. Thus behavioral intentions accounted for some of the relationship between attitudes and involvement but attitudes had an independent influence on wellness involvement as well. Consistent with partial mediation, the beta for wellness program attitudes regressed onto wellness program involvement decreased in the combined model. Please see figure 5 for all beta weights and significance levels. Thus, hypothesis 1 was supported.

Figure 5

## Standardized Regression Statistics for Hypothesis 1



Note. \* indicates  $p < .05$

\*\* indicates  $p < .001$

*Hypothesis 2*

For hypotheses 2a and 2b moderation analyses were attempted to analyze whether wellness program involvement moderated the relationship between occupational stress and turnover. However, statistical analyses could not be conducted due to the lack of variance in turnover of wellness participants. Out of the 4,265 employees involved in the wellness program, only one turned over. All 4,264 others were retained. Please see Table 3 for the cases of turnover, retirement, and retention among wellness participants and other employees

Table 3

*Turnover, retirement, and retention among wellness participants and other employees*

	Wellness Participants	Other Employees
Involuntary Turnover	1	534
Voluntary Turnover	0	1053
Retirement/ Deceased	0	79
Retained	4264	4332
Total	4265	5998

To further understand the differences between the two groups, one can look at the turnover rate for the entire organization as well as each group. The combined turnover rate is 15.5% for the entire sample. For employees who chose not to participate in the wellness program, the turnover rate was 26.5%. However, for wellness participants the turnover rate was 0.00024%.

For hypothesis 2c, a moderation analysis was conducted to ascertain whether wellness involvement moderated the relationship between occupational stress and job performance. This hypothesis was not supported. An interaction term between occupational stress and wellness involvement did not explain a significant increase in variance in job performance,  $\Delta R^2 = .000$ ,  $F(1, 7880) = 0.028$ ,  $p = 0.867$ . However, there was a main effect of wellness involvement,  $R^2 = 0.01$ ,  $F(2, 7881) = 40.884$ ,  $p < .001$ . Employees involved in the wellness program scored on average 2.86 on job performance, whereas employees not involved in the wellness program scored on average 2.65.

*Hypothesis 3*

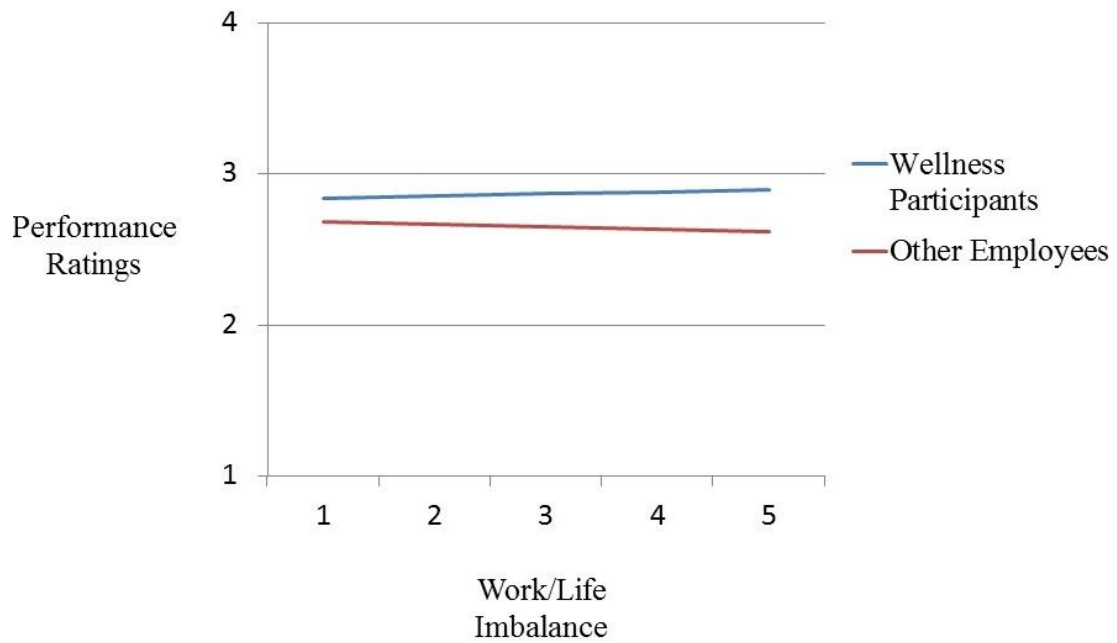
For hypothesis 3a and 3b, moderation analyses could not be conducted due to the lack of variance in turnover for wellness participants.

For hypothesis 3c, a moderation analysis was conducted to ascertain whether wellness involvement moderated the relationship between work/life imbalance and job

performance. This hypothesis was supported. An interaction term between work/life imbalance and wellness involvement explained a significant increase in variance in job performance,  $\Delta R^2 = .001$ ,  $F(1, 7970) = 5.161$ ,  $p < .05$ . The relationship between work/life imbalance and job performance differed between the two groups. Overall, wellness participants received higher job performance ratings than other employees. In particular, employees who reported high work/life imbalance and were involved in the wellness program scored an average 3.12 in job performance while individuals who reported high work/life imbalance and were not involved in the wellness program scored an average 2.51 in job performance. Additionally for wellness participants, as work/life imbalance increased so did job performance. For other employees, as work/life imbalance increased, job performance decreased. Please refer to figure 6 for the regression lines for the two groups.

Figure 6

*Relationship between work/life imbalance and job performance among wellness participants and other employees*



## CHAPTER IV

### DISCUSSION

#### *Employee Wellness and the Theory of Reasoned Action*

Wellness programs are often evaluated via basic participation rates (Lindahl, 2011). However, by evaluating wellness programs at a deeper level we gain an understanding of who participates and why they chose to participate. The current study lends credence to the use of the Theory of Reasoned Action in the wellness program context. It furthers the research conducted by Middlestadt and colleagues (2011) by assessing TRA and wellness in a field sample. Moreover, it was found that behavioral intentions partially mediated the relationship between wellness attitudes and wellness involvement, as we would expect from the literature on TRA and other health promotion behaviors (Cooke & French, 2008). The current study has important implications for change agents and wellness consultants during the needs analysis process. Assessing TRA components can be a useful indicator for whether or not employees will utilize a wellness program and can help practitioners identify potential obstacles to participation.

However, there are some limitations in the current study's examination of TRA and wellness. In particular, we were unable to analyze information on important social referents for the subjective norm component of TRA. Information on the important supporters of the wellness participation decision could be incredibly useful for practitioners for promoting and maintaining the participation of employees. Additionally,

this information could be useful for wellness programs that extend to all beneficiaries of employer insurance, such as family members.

With this in mind, there are many opportunities for future research in TRA and wellness. Not only can subjective norm referents be assessed in a field sample, but by analyzing TRA components via specific attitudes and specific subjective norm referents researchers could ascertain valuable information. For example, if a needs analysis indicates that employees are more likely to participate if they believe it can help reduce their stress, then organizational communications focusing on how the wellness intervention reduces stress could increase participation.

#### *Employee Wellness and Turnover*

After detecting why someone would choose to participate, the current study focused on how a wellness program can help both organizations and their employees. In particular, the current study found surprising results in terms of voluntary and involuntary turnover. While it was hypothesized that a wellness program could help employees experiencing occupational stress and work/life imbalance, the results suggest that wellness programs instead helped everyone in terms of turnover. The overall turnover rate for this 10,430 employee sample was 15.5%. However, for the 4,714 employees who were involved in at least one wellness program intervention, there was a turnover rate of 0.00024%. In fact, only one wellness program participant left the organization and the supplied reason was involuntary turnover due to the reduction of force.

This surprising result concerning wellness and turnover has many implications. For turnover, there are two main themes in the wellness literature. First, some researchers and practitioners posit that wellness programs could be a useful part of a retention

strategy (Taylor, 2011; Turner, 2011). Second, some practitioners caution that return-on-investment calculations must take turnover into account, as an expensive wellness program that targeting employees who subsequently quit is a waste of organizational resources (Fitch & Pyenson, 2008).

For the first theme, these results suggest wellness programs similar to the one studied (completely voluntary programs that follow best practices) can be an effective component of a retention strategy. There are many possible reasons for this finding. The disconnected values (Anshel et al., 2010) model and the coping literature (Pomaki et al., 2007) posit that employees in a wellness program will reduce their overall stress and be better able to withstand the stress they do encounter. Additionally, a wellness program can be an incredible perk to an organization, making the organization very attractive to its employees and influencing them to stay. This is a benefit that other employers may not be able to provide. Moreover, by allowing the wellness program to guide employees on such personal decisions about exercise routines and nutritional habits; this may induce increased identification with the organization, which would in turn foster retention (Fitch & Pyenson, 2008).

The second theme of the wellness/turnover literature is that turnover is an important cost when organizations calculate utility or return-on-investment. For this concern, the results of this study suggest that if a wellness program is voluntary and follows best practices, then turnover should not be a key concern. However, turnover may still be a concern for mandatory wellness programs if the reason for the current study's turnover result is some pre-existing motivational factor and not the wellness program itself.



However, there are several limitations of this study in terms of turnover. First, turnover data was analyzed within one year of initiating the wellness program. While participating employees apparently did not quit or get be fired within that year, if turnover information was collected for several years then wellness program participants' turnover rate may rise to a level more consistent with non-participants. Perhaps a wellness program is not attractive to employees who know their employment is at risk, resulting in low involuntary turnover. Moreover, perhaps before an employee makes a wellness program participation decision, they first decide whether or not to remain in their organization. In this sample, turnover intentions was significantly correlated with the amount of wellness interventions an employee undertook,  $r = .116$ ,  $p < .001$ , indicating that wellness program participation was associated with intending to remain in the organization.

Additionally, this study's findings related to turnover may not be due to the wellness program per se or even turnover intentions but due to some other pre-existing motivational factor. For example, perhaps if employees are very engaged they will participate in the wellness program as well as decide to stay with their organization and perform high enough that they are unlikely to be fired.

There may also be limitations due to the sample used in this study. While this study looked at a large wellness program that crossed state lines, most participants were White (86.7%) women (65%) located in Ohio (71.5%). In fact, 45% of the sample were white women who were located in Ohio ( $N = 4,680$ ). A more diverse sample may make this finding more generalizable to other organizations and other wellness programs.

Further clarification of the wellness-turnover link can be examined in future studies. More longitudinal studies that examine turnover years after a wellness program is initiated can assess whether or not the differences in retention can last throughout an employee's career. Additionally, studies examining other underlying motivational factors besides occupational stress and work/life imbalance can assess whether the difference in retention is due to the wellness program itself or another predicting factor. Moreover, studies from more diverse samples may be more generalizable.

#### *Employee Wellness and Job Performance*

Another key way in which a wellness program can help organizations and their employees is to stimulate the job performance of employees who experience occupational stress and work/life imbalance. In the current study, two hypotheses assessed whether wellness program involvement can help employees perform. For Hypothesis 2c, it was found that while wellness participants ( $M=2.86$ ) on the whole outperformed other employees ( $M=2.65$ ), wellness involvement did not moderate the relationship between occupational stress and job performance. This suggests that while there are differences in performance between the two groups, it is not practically significant.

However, there are several limitations to this study that may have influenced this finding. In terms of measurement, there are many steps that could be taken to more accurately measure occupational stress, wellness involvement, and job performance. For example in terms of occupational stress, participants on the whole were less likely to report stress on two items, "I am doing a good job handling all of the changes at my organization" ( $M=1.9$ ) and "Overall, I am feeling a lot of stress at work" ( $M=1.97$ ). This suggests that the occupational stress items are conceptually dissimilar. Moreover, several

response biases may have tainted the measurement of occupational stress. Perhaps employees were threatened by the wording of some occupational stress items and were therefore less likely to report occupational stress.

Additionally, wellness involvement and job performance were both assessed through single-item measures. A more robust measurement battery may be more effective in isolating the differences in wellness involvement and job performance. Furthermore, there are many limitations in utilizing supervisor ratings as the sole job performance measure. For example, there are many organizational and political factors that influence supervisors and provoke lenient job performance ratings (Pulakos, 2009).

For Hypothesis 3c, wellness involvement moderated the relationship between work/life imbalance and job performance such that employees who experienced work/life imbalance and participated in the wellness program outperformed employees who experienced work/life imbalance and did not participate in the wellness program. Moreover, as work/life imbalance increased, the job performance among wellness participants also increased. At the same time, as work/life imbalance increased the job performance of other employees decreased. The relationship between work/life imbalance and job performance among wellness participants runs counter to what one would expect, suggesting that the wellness program was an effective intervention for employees experiencing work/life imbalance. Not only did wellness participants who experienced a high amount of work/life imbalance outperform their counterparts, wellness participants who experienced a high amount of work/life imbalance outperformed everyone else in the sample.

This suggests that wellness programs similar to the one examined in the current study can be an effective organizational intervention for work/life imbalance. Not only does this have implications for future interventions, this also has implications of Zoller's (2004) analysis of a failed wellness program. The current study suggests that work/life imbalance was a concern for Zoller's participants because the wellness program violated best practices, not that work/life imbalance is an untenable concern. The current study suggests that a well-designed wellness program can mitigate work/life imbalance.

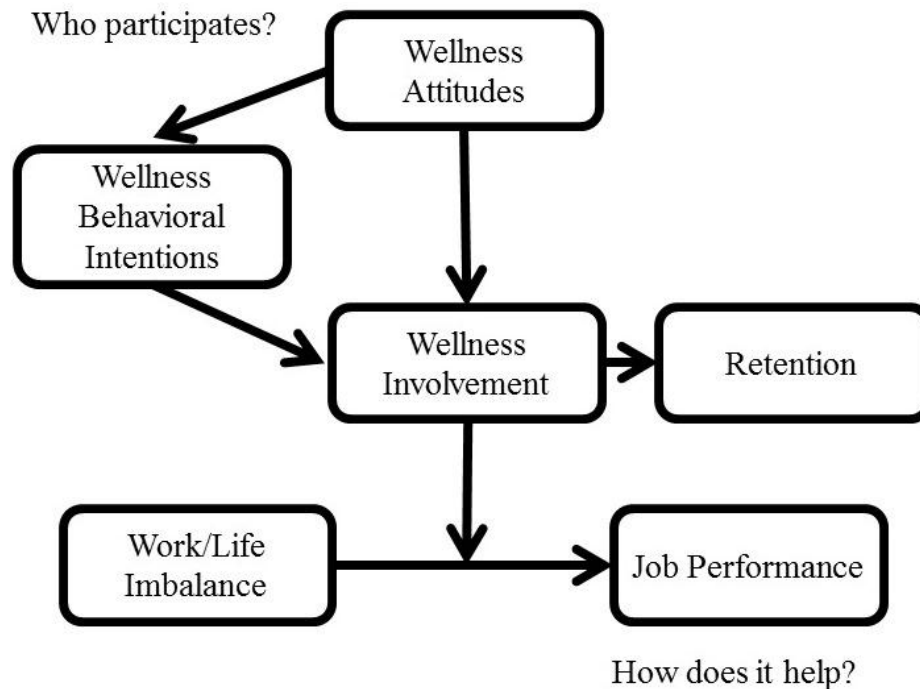
However, several of the limitations previously discussed are also relevant to work/life imbalance and job performance. The diversity of the sample, pre-existing motivational factors, and organizational biases in performance ratings are all relevant concerns. In particular, while the measurement of work/life imbalance is skillfully worded to include all potential forms of work/life imbalance, it was still measured via one item. Subsequent studies analyzing work/life imbalance, wellness, and job performance could use a more robust measure including items on work-to-life interference, life-to-work interference, and work/family conflict to more closely examine the potential benefits of wellness programs.

#### *Implications for Employee Wellness*

Overall, the current study has many important findings for employee wellness programs. Please see Figure 7 for a summary of the important relationships found in this study.

Figure 7

*Summary of important relationships among variables*



Through the current study not only do we gain an understanding on why someone would participate, we also understand how it could help someone in terms of voluntary and involuntary turnover as well as the relationship between work/life imbalance and job performance. Through the Theory of Reasoned Action, we understand that positive attitudes towards wellness programs increased participation. Moreover, behavioral intentions mediated the relationship between positive wellness attitudes and participation.

The current study indicates two main ways in which wellness programs can help both organizations and employees. One main way is turnover. There were no cases of voluntary turnover among wellness participants and only one case of involuntary turnover, suggesting a main effect of the wellness program. This is valuable information for researchers and practitioners looking to use wellness programs as a component of a

retention strategy. The second main way that wellness programs can help both organizations and employees is job performance. Wellness involvement moderated the relationship between work/life imbalance and job performance. For wellness participants, as work/life imbalance increased so did job performance. This suggests that the wellness program was uniquely suited as an intervention against work/life imbalance.

There are two overall strengths of the current study that support the generalizability of these findings. First, it was a large sample encompassing all job levels of an organization. Second, the timeline of measurement is appropriate for intervention analyses. Before any intervention, questions were asked about whether they were willing to be a part of an intervention and what problems they had. Then targeted wellness interventions were implemented. Finally, after a full year of wellness interventions, outcome variables were assessed.

There are many overall implications for future research. The relationships found in the current study could be assessed with more depth with more robust measurement of the target variables. Additional motivational factors could influence the observed relationships. Moreover, a pre/post intervention research design could lend clarity to the results and a longitudinal approach could assess whether the observed relationships will last over time. Additionally, an intervention-level of analysis could ascertain what type of wellness program interventions lead to the observed relationships.

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