The Effect of Workplace Health Promotion Programs on Organizational Attraction
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Abstract

The purpose of this study was to examine the effects of workplace health promotion (WHP) and gender on organizational attraction, focusing on general company attractiveness and job pursuit intentions. Three fictitious job advertisements were created to represent the three main conditions, such that one ad contained a comprehensive WHP program, one ad contained a basic WHP program, and the last ad did not refer to a WHP program (control condition). A total of 317 participants were recruited using Amazon’s Mechanical Turk website. There was a significant main effect of type of WHP program on both general company attractiveness and job pursuit intentions, such that company attractiveness and pursuit intentions were rated significantly higher in the Comprehensive condition than in the Basic and Control conditions. However, there was not a significant interaction between gender and type of WHP on either general company attractiveness or job pursuit intentions. Overall, these findings indicate that if companies utilize a WHP program to attract applicants, they should include a multitude of factors to ensure the program is comprehensive. Given the positive influence that a comprehensive WHP program seems to have on organizational attraction, future research should further investigate which aspects of a comprehensive WHP program impact general company attractiveness and job pursuit intentions the most.
Chapter I

Review of the Literature

A study carried out by the Centers for Disease Control and Prevention found that obesity in the United States exceeds 30% of the adult population in most sex and age groups (Flegal, Carroll, Ogden, & Curtin, 2010). This nationwide issue can lead to other health problems such as cardiovascular disease and diabetes. With a multitude of health-related issues plaguing the population, companies are feeling the strain through direct costs such as health care and indirect costs such as loss of productivity. Gates, Succop, Brehm, Gillespie, and Sommers (2008) found that moderately or extremely obese workers were 1.18% less productive than other workers due to not being able to perform physical duties and taking longer to complete tasks. Another study categorized employees into health risk levels based on their Body Mass Index (BMI). It was found when an employee increased his/her BMI and it resulted in an elevation of risk level, a loss of 1.9% in productivity occurred (Burton, Chen, Schultz, & Edington, 1998). The aforementioned figure illustrates the toll taken on companies dealing with the growing health issues and their consequences.

Many companies have become proactive against health problems by enacting wellness campaigns with approximately 80% to 90% of employers offering at least one program in an attempt to cut back on health-related costs. However, the number of employers with comprehensive wellness programs (e.g., targeting unhealthy behaviors such as smoking, and addressing general health factors) is estimated at 35% to 40%
WHP AND ORGANIZATIONAL ATTRACTION

(Milligan, 2000). These programs promote healthy lifestyles for employees in many ways including having onsite workout facilities, offering incentives for meeting exercise goals, and providing health consultations. The programs vary in their complexity from minimal to comprehensive with the term comprehensive having many definitions from addressing both individual and organizational/environmental levels of change (Wilson, Holman, & Hammock, 1996) to “including both a fitness component and an educational component” (Parks & Steelman, 2008, p. 58).

Although research has investigated the potential benefits of workplace health promotion (WHP) programs for both employers and employees (e.g., Baicker, Cutler, & Song, 2010; Dement, Epling, Joyner, & Cavanaugh, 2015), there is a lack of research examining whether WHP programs are influential in attracting applicants. The main purpose of this study, therefore, was to examine the effect of WHP programs on organizational attraction. Specifically, this research investigated which type of program was seen as most attractive by potential applicants. Another important factor to consider is whether WHP programs’ potential effect on organizational attraction might differ for male and female applicants. Although some research has investigated whether there are gender differences in using WHP programs (e.g., Verdonk, Seesing, & de Rijk, 2010), less is known about any potential gender differences in applicant attraction. Therefore, another purpose of this study was to investigate if gender has a moderating effect on the relation between type of WHP program and organizational attraction.

A review of the WHP program literature is presented below, emphasizing the overall costs and savings of implementing a WHP program. Additionally, this review will discuss how men and women vary in their reactions and participation in such programs.
Finally, the job advertisement literature, as it relates to organizational attraction, will be presented, focusing on the relation between WHP programs and organizational attraction.

**Savings from Workplace Health Promotion**

Workplace health promotion (WHP) programs are employer initiatives directed at improving health and well-being of workers, and in some cases, their dependents (Goetzel & Ozminkowski, 2008). Research on WHP has undergone a surge in recent years due in part to America’s health care issues. With health care expenses on the rise, companies are vulnerable to absorbing considerable costs from workers who suffer from preventable diseases. The most efficient way to combat these costs is to institute wellness programs, preventing employees from developing medical issues and remedying those that already exist. But the question remains, what does the employer gain from this? A recent meta-analysis done at Harvard found that for every dollar an employer spends on a wellness program, their medical costs fall by $3.27 (Baicker et al., 2010). Simple mathematical calculations show that large organizations with thousands of employees would realize substantial savings. It is, however, important to note the sample contained a variety of wellness programs that were in effect for spans ranging from six months to six years, making it difficult to grasp the length of time required for a program to become effective. A separate study of Proctor & Gamble done by Goetzel, Jacobson, Aldana, Vardell, and Yee (1998) found it took three years for financial results to start to appear. Despite the delay, in the third year participants had “significantly lower inpatient costs, fewer hospital admissions, and fewer hospital days of care than non-participants” (p. 341). Although it takes time for the program’s infrastructure to take hold and produce
beneficial outcomes for its participants, it is important for employers to understand the lag is part of the process and that results will make up for the lost time.

Health care savings are not the only benefit an employer yields since having WHP programs has also been associated with lower absenteeism. Employees in poor health are more likely to be absent from their job than healthy employees. In a study of banking data over three years, Burton and colleagues (1998) found that at-risk employees, characterized by a Body Mass Index (BMI) greater than 27.8 in men and greater than 27.3 in women, used an average of 8.45 sick days while not at-risk employees only used 3.73 sick days. The cost of a sick day for the bank was $189; therefore, those at risk had excess cost in absenteeism of $863 per person than those not at risk (Burton et al., 1998). Companies that have wellness programs in place were able to significantly reduce absenteeism and, in one case, found $15.60 in savings for every dollar spent on the program (Aldana, Merrill, Price, Hardy, & Hager, 2005).

Another potential benefit of WHP programs is that they could potentially enhance productivity by reducing presenteeism, which refers to when an employee is present at work but is limited in some aspects of job performance because of a health problem (Cancelliere, Cassidy, Ammendolia, & Cote, 2011). Whereas most research has focused on direct medical costs, the costs of employees not working to their full potential can be just as costly. As employees accumulate more health risks (e.g. diabetes, high blood pressure, high cholesterol) their hours lost per week to illness, short-term disability, and production steadily increase. However, the hours lost to poor production caused by presenteeism are more than double those lost from other causes, such as absenteeism and disability (Burton, Conti, Chen, Schultz, & Edington, 1999). This is likely because it is
easier for employees to show up at work and give a lackluster effort than it is for them to justify taking time off to their boss.

Ideally, workplace health promotions are considered by companies for reasons beyond hours of enhanced production and financial rewards. The basis of a program is to increase awareness of possible health issues, help employees detect problems, and eliminate any concerns. The results of increasing employee health will eventually lead to a more productive and stable business, but first and foremost, the goal is improving quality of life. Previous studies have shown that there are short-term improvements in weight loss of typically 1 to 2 pounds per week (Hennrikus & Jeffery, 1996) and in lowering cholesterol (Glanz, Sorensen, & Farmer, 1996), but for employers to reap the financial benefits of programs, the changes will need to be maintained over time (e.g., Goetzel et al., 1998).

Muto and Yamauchi (2001) conducted a study on the long-term effectiveness of a multi-component health promotion program used in Japan. The program’s initial phase consisted of “education on nutrition, physical activity, stress, and cardiovascular disease risk factors through lectures, practical training, individual counseling, group discussion, and self-education” (p. 573). The follow up 18 months later concluded that employees were able to reduce obesity, high blood pressure, and hyperlipidemia. These results are encouraging for two reasons. First, the results show the costs associated with the programs are rational since improvements on health tests demonstrate the effectiveness of the programs. Second, although causality cannot be inferred, the results showcase the possible benefits of using a multi-component model that addresses numerous health risk factors as opposed to a simpler model addressing only one risk. The authors suggest that
by using a multi-component model, the participants were exposed to more information than those using a basic model and the increased amount of material made the information more salient in the participants’ minds leading to better participation and more benefits. The use of a multi-component model is one of many aspects included in programs that are considered to be comprehensive.

The definition of a comprehensive program varies by article, but the overarching principle is that it is a program consisting of a combination of interpersonal, intrapersonal, organizational, and cultural factors. Therefore, a comprehensive program could consist of interventions at a behavioral level by encouraging healthier lifestyles with more physical activity and improved nutrition or at a relational level focused on leadership and organizational culture by changing the culture to a healthier workplace. A meta-analysis done by Parks and Steelman (2008) categorized programs as being either fitness-only or comprehensive. The fitness-only programs were fitness-oriented and provided membership to health clubs. The comprehensive program included both the fitness aspect as well as an educational component such as classes on nutrition or stress reduction. The article found that comprehensive programs improved health through the fitness component and helped prevent health issues through the educational component. For the purposes of this study, a comprehensive program is defined as consisting of a fitness component, educational component, and organizational component (e.g., on-site childcare). On the other hand, a program that has only one facet, such as the fitness-only programs discussed, is referred to as a basic program.

Although the overall benefits of implementing WHP programs seem to outweigh the costs, two issues that potentially arise with organizations becoming more involved in
employee health practices are how much control employers should have over employees’
non-work related behaviors and how punitive those programs are. For example, Klautke
and Park (2011) showed that employees are adamant about not allowing companies to
influence their behaviors away from work. Results showed that as companies had more
control over aspects such as fitness, nutrition, smoking, and wellness awareness, the
employees’ perceptions of the appropriateness of the organizations’ programs and
policies tended to decline.

Along similar lines, another issue relevant to WHP programs that employers must
tackle is how harsh the interventions or programs are. For example, Park et al. (2010)
determined that an increase in perceived severity of a smoke-free policy was associated
with lower employee organizational attraction. The findings were surprising given that
the study participants included smokers, non-smokers, and ex-smokers, yet a severe anti-
smoking policy was met with lower attraction. It is important to note that although
organizational attraction is a construct used in the applicant attraction literature, Park et
al. adapted a few items from a scale measuring organizational attractiveness from an
applicant’s perspective (Highhouse, Lievens, & Sinar, 2003) to assess organizational
attraction from an employee’s perspective. Sorenson et al. (2007) also found that
decreasing the number of employees who smoke is possible when employers use a
tailored intervention through means such as counseling, feedback reports, and written
educational materials. Therefore, companies need to be aware of how their employees
feel about certain changes being made. Both the Park et al. and Sorenson et al. studies’
results can be used to increase organizational attractiveness by having companies conduct
surveys of prospective job applicants, as well as current employees, to gauge their
reactions to potential programs. These results can then be used to develop and integrate an adequate program that is satisfactory for both sides.

Given the afore-mentioned results, it is important that the program is not seen as invasive or severe. In other words, the voluntary nature of the WHP program should be emphasized. Hence, in the current study, the WHP program will be optional for employees to take part in.

**Gender and Workplace Health Promotion**

An interesting factor that is related to WHP programs is whether they are used by one gender more than the other. Overall, workplace health promotion is lacking extensive research on gender effects. However, there have been some studies investigating whether there are gender differences in using WHP programs (e.g., Robroek, van Lenthe, van Empelen, & Burdorf, 2009; Verdonk et al., 2010), and results have been somewhat mixed.

Most research has found that women tend to use WHP programs more than men (e.g., Glasgow, McCaul, & Fisher, 1993), and that overall, men do not seem to participate in such programs (e.g., Verdonk et al., 2010). Additionally, it has been found that women who are younger and better educated are more likely to participate than other women (Janer & Kogevinas, 2008). For example, Glasgow and colleagues (1993) reviewed the literature and found that although requirements of what was considered participation in WHP programs varied from study to study, overall, men were less likely to participate in programs than women. A more recent Dutch study confirmed that men often do not participate in such programs (Verdonk et al., 2010). By interviewing 13 male employees, Verdonk and colleagues (2010) found that employees believed the ideal man is one who
is a winner, ready to compete, and not vulnerable. They also found many resisted the workplace physical activity because they perceived it to be an emphasis on good looks instead of a healthy lifestyle. Additionally, the masculine norms were said to be related to challenging health, whereas taking care of health was seen as feminine. Despite the small sample size of the study and the qualitative aspects, the findings are consistent with previous quantitative research regarding participation in WHP programs (e.g., Glasgow et al., 1993; Verdonk et al., 2010). However, due to the sample size, it is important to note the findings may not be generalizable.

Other research has shown that women may not be interested in participating in WHP programs (e.g., Tavares & Plotnikoff, 2008). For example, Tavares and Plotnikoff (2008) conducted focus groups and interviews with women and found that workplace health promotion programs were not a high priority because of perceptions that the programs were unfavorable towards women. Female employees felt that the programs were implemented primarily to bolster a good corporate image to outsiders, and management had no real desire to make improvements. Tavares and Plotnikoff (2008) also conducted interviews with senior personnel to gain an understanding of what issues were most prevalent in keeping women, with or without young children, from physical activity behaviors. It was apparent that the increased duties of working did, at times, interfere with those of being a caregiver. With all these roles needing to be filled, it is no surprise that “lack of time due to work, family, or other obligations was the main barrier cited for those with and without children and dictated the amount of physical activity achieved” (Tavares & Plotnikoff, 2008, p. 273). Due to these findings, it would be beneficial for companies to find a way to incorporate childcare into their workplace
health programs. Although it would not solve all issues considering all women do not have children, it would free up a large portion of time for many women because they could have their children cared for as they exercise. Additionally, onsite childcare has been shown to reduce absenteeism as well as increase employee retention (Kossek & Nichol, 1992).

Overall, although results have been somewhat mixed, most research conducted seems to suggest that women, especially those who are well-educated and under 30, are more likely to participate in WHP programs than men (e.g., Janer & Kogevinas, 2008; Robroek et al., 2009; Sloan & Gruman, 1988; Trudeau, Deitz, & Cook, 2002). For example, Sloan and Gruman (1988) found that women were more likely to take part in WHP programs than men. In a systematic review of 23 studies on the characteristics of participants and non-participants in WHP programs, Robroek et al. (2009) also found that, overall, female workers participated more in WHP programs than men. However, Robroek et al. (2009) also found that there were no differences in male and female participation rates when the programs included access to fitness centers. Therefore, what is offered in the WHP program could potentially influence whether male and female employees participate in such programs. By being aware of the potential gender effects in participating in WHP programs, companies could design and implement programs that are more effective for both sexes. In turn, this could allow for a more productive workforce. However, prior to having a productive workforce, companies have to recruit and hire people to do the job. A company needs to be able to attract top workers in order to compete, and although research has shown that implementing WHP programs could be
beneficial for employees and the company, less is known about whether having WHP programs could influence applicant attraction.

**Organizational Attraction**

The simplest way for a company to become successful is to have a talented, competent workforce. However, before the best workers can be brought into an organization, they need to be enticed into applying. Investigating people’s initial decisions to apply for a job is important, as these decisions influence the other stages in recruitment. One area that is especially relevant to initial decisions to apply deals with examining how reactions to job advertisements influence organizational attraction (Barber, 1998).

Job advertising is one source of recruitment that has been widely used by companies for years (Perkins, Thomas, & Taylor, 2000). It is crucial to investigate the factors that might increase job advertisement effectiveness because it could be the first impression a potential applicant has about an organization. Job advertisement research has addressed several important topics, such as how applicants react to diversity information (e.g., Avery, 2003; Williamson, Slay, Shapiro, & Shivers-Blackwell, 2008), how to attract African American applicants (e.g., Highhouse, Stierwalt, Bachiochi, Elder, & Fisher, 1999), and how to enhance a job advertisement’s effectiveness (e.g., Highhouse, Beadle, Gallo, & Miller, 1998; Thorsteinson & Highhouse, 2003;). For example, Highhouse et al. (1998) found that the wording of a job advertisement greatly affects who applies, as well as job and company perceptions. Highhouse and colleagues (1998) looked at entry-level jobs and whether vacancy availability (scarce vs. plentiful) and scarcity type (number of vacancies vs. time to apply) had an impact on job pursuit
intentions, pay inferences, and company image. It was found that by simply stating there are only a few vacancies as opposed to having many available positions resulted in participants viewing the companies as having higher employee loyalty and commitment. Participants also believed jobs with few vacancies would pay more than those with plentiful openings. Thorsteinson and Highhouse (2003) looked at the effects of goal framing on organizational attractiveness by using job ads that either emphasized the costs or losses of not applying (loss frame) or the potential gains or benefits of applying (gain frame). Findings showed that participants were more attracted to the organizations that used the gain frame in their advertisements. These studies illustrate the need for organizations to put serious thought into how job advertisements are organized and what information they include because it has a large impact on how potential applicants view the company.

However, this job ad literature lacks research investigating the effect of including workplace health promotion information in job advertisements on organizational attraction. Based on the previous discussion, it seems likely that this might enhance organizational attraction. Therefore, the main purpose of this study is to investigate whether including information about WHP programs in a job ad could increase organizational attraction. Specifically, the effect of WHP programs on both company attractiveness and people’s willingness to apply to a job will be investigated. Moreover, based on the previous discussion on gender differences in participating in WHP programs, the moderating effect of gender on this relation will be investigated. The following section presents the rationale and specific hypotheses of this study.
Chapter II

Rationale and Hypotheses

Workplace health promotion (WHP) programs promote healthy lifestyles for employees by offering things like onsite workout facilities and by providing health consultations. The use of such programs has become prevalent in recent years with approximately 80% to 90% of employers offering at least one program in an attempt to cut back on health-related costs (Milligan, 2000). Employee medical expenses can quickly add up, but a meta-analysis done at Harvard found that for every dollar an employer spends on a wellness program, their medical costs fall by $3.27 (Baicker et al., 2010). Additional indirect costs are incurred by organizations from issues such as absenteeism and presenteeism. Absenteeism is so prevalent that by instituting a workplace health program, a company could save $15.60 for every dollar spent on the program (Aldana et al., 2005). Presenteeism could be even worse with one study finding the hours lost to poor production are more than double those lost from other causes such as absenteeism (Burton et al., 1999).

Carefully-worded and presented job advertisements can play a crucial role in attracting potential applicants (Highhouse et al., 1998; Thorsteinson & Highhouse, 2003). With the implementation of workplace health programs, companies could become more attractive. Organizational attractiveness and job pursuit intentions were used to measure organizational attraction. These represent two dimensions of a multi-dimensional
organizational attraction measure that Highhouse et al. (2003) developed. Company prestige was the third dimension and was designed to assess the degree which organizations are perceived to be well regarded and reputable. However, this dimension was not of interest or administered in this study because the focus was on the effect of the WHP program on general company attractiveness and job pursuit intentions and not the company’s reputation. The degree a company becomes involved as well as how they implement a WHP program can affect employees’ organizational attraction (Park et al., 2010) and the program’s effectiveness (Sorensen et al., 2007). Additionally, a program being either comprehensive or basic has an impact on how much employees’ lives will improve (Parks & Steelman, 2008). Hence, it is expected that participants will be more attracted to organizations with a comprehensive as opposed to a basic WHP program or no WHP program at all. Specifically, it is hypothesized that:

_Hypothesis 1a:_ There will be a significant main effect of type of workplace health promotion program on organizational attractiveness, such that participants will perceive the company with the comprehensive workplace health promotion program as the most attractive, followed by the company with the basic workplace health promotion program, followed by the company with no workplace health promotion program; all the means will be significantly different from each other.

_Hypothesis 1b:_ There will be a significant main effect of type of workplace health promotion program on job pursuit intentions, such that participants will be most likely to pursue a job at the company with the comprehensive workplace health promotion program, followed by the
Gender differences in workplace health promotion have scarcely been looked at, and when they have, the results have been contradictory (Tavares & Plotnikoff, 2008). One of the few studies addressing the gender distinction showed that women had a lack of time to engage in physical activities because of obligations such as work and family (Tavares & Plotnikoff, 2008). On the other hand, other studies have shown that women are more likely to participate in the programs than men (Janer & Kogevinas, 2008; Trudeau, Deitz, & Cook, 2002). Furthermore, an often cited article by Glasgow et al. (1993) found that men were less likely to participate in programs than women. Therefore, overall, most research seems to suggest that women, especially those who are well-educated and under 30, are more likely to participate in WHP programs than men (e.g., Janer & Kogevinas, 2008; Robroek et al., 2009; Sloan & Gruman, 1988; Trudeau et al., 2002). Hence, it is expected that a similar effect will be found for organizational attraction, such that, compared to men, women will be more attracted to organizations that offer WHP programs. Specifically, it is hypothesized that:

\( H2a: \) There will be a significant interaction between gender and type of workplace health promotion program on organizational attractiveness, such that the effect of workplace health promotion on organizational attractiveness will be stronger for females than males.

\( H2b: \) There will be a significant interaction between gender and type of workplace health promotion program on job pursuit intentions, such that
the effect of workplace health promotion on job pursuit intentions will be stronger for females than males.
Chapter III

Method

Participants

Participants were recruited using Amazon’s Mechanical Turk (MTurk) website, which is an online labor market where workers choose which human intelligence tasks (HITs) they will do for a set price. They were paid $0.50 to complete the estimated 15-minute survey. MTurk workers were eligible to participate if they lived in the United States and had a HIT approval rate of at least 95%. There were a total of 701 responses to the survey. There were 92 responses removed due to only partial completion, 16 responses were removed because they were completed at locations other than the United States, 11 were removed for failing the quality check, 257 were removed for failing the manipulation check, and 8 were removed for being duplicate submissions identified by MTurk worker ID numbers. The duplicates were most likely due to the study being reposted on MTurk to meet sample size goals; all initial submissions for the duplicate users were kept.

The final sample consisted of 317 participants, with 169 males (53.3%) and 148 females (46.7%). The average age of participants was 33.9 years ($SD = 12.3$). The majority of the participants were White or Caucasian (81.1%), 6.3% reported being Black or African American, 5.0% were Hispanic or Latino, 4.7% were Asian, 0.3% were American Indian or Alaskan Native, 1.6% reported their race/ethnicity as Other, and
1.0% did not respond to this item. About 36.3% of the participants reported having a bachelor’s degree, 30.6% reported having some college (but no degree), 10.4% had an associate’s degree, 9.5% had a high school diploma or equivalent, 9.1% had a master’s degree, 2.5% had a doctoral degree, 1% left this item blank, and .6% reported their education as below high school. About 72.6% of the participants were currently employed, 25.9% were not currently employed, and 1.6% did not respond to this item. The average years of overall work experience for the participants was 13.2 years ($SD = 11.7$). At the time of the survey, 40.1% of the participants were searching for a job, 59.6% were not searching for a job, and .3% did not respond to this item.

**Materials and Measures**

**Job advertisements.** Job ads were created for entry-level associate positions in an imaginary company, and they were similar to other ads used in the literature (e.g., Highthouse, Brooks-Laber, Lin, & Spitzmueller, 2003; Reeve & Schultz, 2004). The ads addressed employee salary and benefits packages. One ad contained information regarding a comprehensive WHP program, one ad contained a basic WHP program, and one had no reference to a WHP program. Please refer to Appendix A for the job ads.

**Recognition and quality checks.** There was one recognition check included to ensure participants read the job ad carefully, which asked participants whether or not a WHP program had been offered. Participants were given the option to select that no program was offered, a basic program was offered, or a comprehensive program was offered. Two quality checks were also included to ensure that participants were paying attention while taking the study. Please refer to Appendix B for the recognition and quality check items.
Manipulation checks. A few additional items were included for exploratory purposes; these items were developed to ensure that the manipulation worked. Participants had to rate a few statements using a 5-point response format ranging from 1 (strongly disagree) to 5 (strongly agree).

Organizational attraction measure. Organizational attractiveness and job pursuit intentions were used to measure organizational attraction. These represent two dimensions of a multi-dimensional organizational attraction measure that Highhouse et al. (2003) developed. Company prestige was included as a third dimension, but because it was not of interest in the current study, it was not administered. Coefficient alphas were .88 for the general organizational attractiveness scale and .82 for the job pursuit intentions scale (Highhouse et al., 2003). In the current study, coefficient alphas were .90 and .86 for general company attractiveness job pursuit intentions, respectively. The measures were strongly correlated ($r = .85, p < .001$). Both scales used a 5-point response format ranging from 1 (strongly disagree) to 5 (strongly agree). The reference needed to obtain this measure is included in Appendix C.

Procedure

Institutional Review Board (IRB) approval was obtained through Xavier University’s IRB (see Appendix D for the IRB approval letter). After IRB approval was granted, participants were recruited using Amazon’s Mechanical Turk (MTurk) website (see Appendix E for the MTurk interface). Participants completed the survey online through the use of SurveyGizmo.com. When participants accessed the survey, they were directed to an informed consent form (please see Appendix F). After agreeing to participate in the study, participants were randomly assigned to one of three job ads,
representing the three conditions. After they read the job ad, participants were asked to complete the organizational attractiveness and job pursuit intentions scales. Then, they had to complete the recognition and manipulation check items and a few demographic items (please see Appendix G). Participants also had to complete two quality check items. Once they submitted this information, they were directed to a debriefing form (please see Appendix H). Initially, participants were compensated if they completed all required items and passed the recognition check as well as both quality checks. However, after a large number of participants failed the recognition check, a modification was submitted to the IRB to allow participants who failed the recognition check to get paid, as long as they passed both quality checks. Although all participants who completed all the required items and passed both quality checks got paid for participating in this study, those who failed the recognition check were discarded prior to running any data analyses.
Chapter IV

Results

Main Analyses

A 2 x 2 between-subjects factorial analysis of variance was conducted to examine the effects of gender and type of WHP program on general company attractiveness (see Table 1). For Hypothesis 1a, there was a significant main effect of type of WHP programs on company attractiveness, $F(2, 311) = 10.70, p < .001, \eta^2_p = .06$. Results showed that the Comprehensive program received the highest mean rating ($M = 4.27, SD = 0.56$), followed by the Control program ($M = 3.94, SD = 0.67$), with the Basic program receiving the lowest mean rating ($M = 3.83, SD = 0.76$). Post-hoc analyses using Scheffé’s method indicated a significant difference between the Control and Comprehensive groups ($p = .002$), as well as a significant difference between the Basic and Comprehensive groups ($p < .001$); both findings were in the hypothesized direction. Therefore, Hypothesis 1a was partially supported. Results also revealed that there was not a significant interaction between gender and type of WHP programs on company attractiveness, $F(2, 311) = 1.10, p = .333, \eta^2_p = .01$; therefore, Hypothesis 2a was not supported. Please see Table 2 for all the means and standard deviations by condition.
Table 1

*Effects of Workplace Health Promotion (WHP) Program and Participant Gender on Organizational Attraction*

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>$\eta^2$</th>
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<tbody>
<tr>
<td><strong>General Company Attractiveness</strong></td>
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<tr>
<td>WHP Program</td>
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<td>4.75</td>
<td>10.70</td>
<td>.001</td>
<td>.06</td>
</tr>
<tr>
<td>Gender</td>
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<td>2.65</td>
<td>5.97</td>
<td>.015</td>
<td>.02</td>
</tr>
<tr>
<td>WHP Program * Gender</td>
<td>0.98</td>
<td>2</td>
<td>0.49</td>
<td>1.10</td>
<td>.333</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
<td>137.92</td>
<td>311</td>
<td>0.44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Job Pursuit Intentions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHP Program</td>
<td>5.76</td>
<td>2</td>
<td>2.88</td>
<td>6.71</td>
<td>.001</td>
<td>.04</td>
</tr>
<tr>
<td>Gender</td>
<td>2.73</td>
<td>1</td>
<td>2.73</td>
<td>6.34</td>
<td>.012</td>
<td>.02</td>
</tr>
<tr>
<td>WHP Program * Gender</td>
<td>0.79</td>
<td>2</td>
<td>0.39</td>
<td>0.92</td>
<td>.400</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
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<td>311</td>
<td>0.43</td>
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</table>
Table 2

Descriptive Statistics for Organizational Attraction by Condition

<table>
<thead>
<tr>
<th>Gender</th>
<th>Workplace Health Promotion</th>
<th></th>
<th></th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control(^a)</td>
<td>Basic(^b)</td>
<td>Comprehensive(^c)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>M SD</td>
<td>M SD</td>
<td>M SD</td>
<td>M SD</td>
</tr>
<tr>
<td>3.92</td>
<td>0.66</td>
<td>3.7</td>
<td>0.88</td>
<td>4.18</td>
</tr>
<tr>
<td>Female</td>
<td>M SD</td>
<td>M SD</td>
<td>M SD</td>
<td>M SD</td>
</tr>
<tr>
<td>3.97</td>
<td>0.69</td>
<td>4.02</td>
<td>0.52</td>
<td>4.37</td>
</tr>
</tbody>
</table>

Job Pursuit Intentions

<table>
<thead>
<tr>
<th>Gender</th>
<th>Workplace Health Promotion</th>
<th></th>
<th></th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control(^a)</td>
<td>Basic(^b)</td>
<td>Comprehensive(^c)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>M SD</td>
<td>M SD</td>
<td>M SD</td>
<td>M SD</td>
</tr>
<tr>
<td>3.73</td>
<td>0.69</td>
<td>3.6</td>
<td>0.72</td>
<td>4</td>
</tr>
<tr>
<td>Female</td>
<td>M SD</td>
<td>M SD</td>
<td>M SD</td>
<td>M SD</td>
</tr>
<tr>
<td>3.82</td>
<td>0.67</td>
<td>3.94</td>
<td>0.54</td>
<td>4.13</td>
</tr>
</tbody>
</table>

\(^an = 59\) males and 67 females. \(^bn = 56\) males and 38 females. \(^cn = 54\) males and 43 females.
A 2 x 2 between-subjects factorial analysis of variance was also conducted to examine the effects of gender and type of WHP program on job pursuit intentions (see Table 1). As predicted in Hypothesis 1b, there was a significant main effect of type of WHP program on job pursuit intentions, $F(2, 311) = 6.71, p = .001, \eta^2_p = .04$. As expected, the mean was highest for the Comprehensive program ($M = 4.06, SD = 0.59$); however, on average, the ratings were very similar for the Basic ($M = 3.74, SD = 0.71$) and Control ($M = 3.78, SD = 0.68$) programs. Post-hoc analyses using Scheffe’s method indicated a significant difference in job pursuit intentions between the Control and Comprehensive groups ($p = .007$), as well as the Basic and Comprehensive groups ($p = .004$); both findings were in the expected direction. However, there was no statistically significant difference in the means between the Control and Basic programs ($p = .907$). Therefore, Hypothesis 1b was partially supported. There was not a significant interaction between gender and type of WHP program on job pursuit intentions, $F(2, 311) = 0.92, p = .400, \eta^2_p = .01$; therefore, Hypothesis 2b was not supported. Please see Table 2 for all the means and standard deviations by condition.

Surprisingly, gender had a significant main effect on both general company attractiveness, $F(1, 311) = 5.97, p = .015, \eta^2_p = .02$; and job pursuit intentions, $F(1, 311) = 6.34, p = .012, \eta^2_p = .02$. Results suggested that females ($M = 4.12, SD = 0.06$) rated company attractiveness significantly higher than males ($M = 3.93, SD = 0.05$). Along similar lines, results also indicated that females ($M = 3.97, SD = 0.06$) were significantly more likely to pursue the job than males ($M = 3.77, SD = 0.05$).
Exploratory Analyses

A series of one-way between-subjects analyses of variance were conducted on the five exploratory manipulation check items to further examine if the manipulation of the type of WHP program was effective. All effects were statistically significant at the .001 level; therefore, post-hoc analyses were done using Scheffe’s method. Both the items “offers onsite childcare,” $F(2, 314) = 182.65, p < .001$, and “helps employees quit smoking,” $F(2, 314) = 115.70, p < .001$, indicated a significant difference between the Control and Comprehensive groups, as well as the Basic and Comprehensive groups, in the expected direction, with the Comprehensive condition having the highest mean and the Basic condition having the lowest mean. However, there was no significant difference between the Basic and Control groups, which also provides further support of the manipulation of WHP program because both items refer to services that were offered in the Comprehensive program but not the Basic program. Hence, there should have been no significant differences between the Basic and Control conditions for these two items, which is what the findings revealed. As expected, there were significant differences among all three groups for the remaining three items. The results were also in the expected direction, with the Comprehensive condition having the highest mean and the Basic condition having the lowest mean, for the following items: “is focused on improving employee physical fitness,” $F(2, 314) = 106.78, p < .001$; and “offers its employees a variety of ways to improve their health,” $F(2, 314) = 113.88, p < .001$. Although the item “facilitates health improvement seminars for employees” was also significant, $F(2, 314) = 47.26, p < .001$, interestingly, the Basic condition had the highest mean and the Control condition had the lowest mean. However, further evaluation of this
item revealed that facilitating “health improvement seminars” was not mentioned in the Comprehensive condition. Therefore, this finding provides further evidence that the manipulation of WHP program level was successful.
Chapter V

Discussion

The purpose of this study was to determine the effect of WHP programs on organizational attraction. Specifically, the focus was to investigate whether information in job ads regarding the level of WHP program would influence a company’s perceived attractiveness and people’s desire to pursue the job. The levels examined were no program (control condition), a basic program (consisting of annual health risk appraisals, monthly health improvement seminars, and weekly newsletters), and a comprehensive program (consisting of biannual health risk appraisals, unlimited on-site gym access, on-site healthcare, a personal health therapist, and the opportunity to take part in our smoking cessation program). The potential interaction between type of WHP program and participant gender on organizational attraction was also examined.

It was hypothesized that there would be a main effect of type of WHP program on general company attractiveness, with participants perceiving the Comprehensive program as the most attractive, followed by the Basic program, and then the Control program. Additionally, it was hypothesized that there would be a similar main effect of type of WHP program on job pursuit intentions, with participants most likely to pursue a job at the company with the Comprehensive program, followed by the company with the Basic program, and then the company with the Control program. As expected, the findings showed a significant main effect of type of WHP program on general company
attractiveness. Specifically, there were significant differences between the Control and Comprehensive programs, as well as the Basic and Comprehensive programs, with the general attractiveness being rated significantly higher than both of the other conditions. Therefore, general attractiveness was rated similarly in both the Basic and Control conditions. Along similar lines, there was a significant main effect of type of WHP program on job pursuit intentions. The Comprehensive program had the highest mean, but there was no significant difference between the Control and Basic programs. Similar to general attractiveness, there were significant differences between the Control and Comprehensive programs, as well as the Basic and Comprehensive programs, but there was no statistically significant difference between the Control and Basic programs.

For both dimensions of organizational attraction examined in this study, the Comprehensive WHP program had the highest mean. In other words, participants were most attracted to and most likely to pursue a job at the company with the Comprehensive program than a company with no program or a company with a Basic program. These results extend findings in prior WHP research. For example, Muto and Yamauchi (2001) asserted that multi-component WHP programs were more effective long term. Eighteen months after implementing a multi-component health promotion program in Japan, the authors found that employees were able to reduce obesity, high blood pressure, and hyperlipidemia. Muto and Yamauchi stated that by using a multi-component model, the participants were exposed to more information than those using a basic model, and the increased amount of material made the information more salient in the participants’ minds leading to better participation and more benefits. Our findings suggest the multi-component aspect of a WHP program may also increase organizational attraction and is
more effective than a basic program. The lack of a significant difference between Control and Basic programs was somewhat surprising; however, this finding can be potentially explained by how we operationalized “Basic” in this study. Specifically, this condition consisted solely of an educational component. Given that previous research has found that health education interventions are vulnerable to low participation rates (Gucciardi, Cameron, Liao, Palmer, & Stewart, 2007), focusing on only an “educational” component may have resulted in the lack of significant difference in organizational attraction between the basic and control conditions.

It was also hypothesized that there would be a significant interaction between gender and type of WHP program on general company attractiveness and job pursuit intentions, with the effect being stronger for females than males. Contrary to expectations, there was not a significant interaction effect between gender and type of WHP program on either dimension of organizational attraction. These findings suggest that the effect of WHP programs on both general company attractiveness and job pursuit intentions is the same for males and females, which seems contrary to the majority of the research suggesting that women are more likely to participate in WHP programs than men (e.g., Glasgow et al., 1993), but it is important to note that past research has been focused on the actual participation in WHP programs instead of organizational attraction. However, this finding is similar to other research that examined WHP participation rates across gender. For example, according to Robroek et al. (2009), programs that provide incentives, have a multi-component strategy, and focus on multiple behaviors have higher overall participation levels. Moreover, they found that there was no difference in participation by gender when the WHP program included a fitness center. Robroek et
al.’s findings could help explain the lack of gender differences in this study. It is possible that although males and females may be equally attracted to a company and pursue a job there due to the organization offering a comprehensive WHP program, females might be more inclined to actually participate in the program once they start working at the company.

**Theoretical and Practical Implications**

_Theoretical implications._ The results of this study have important theoretical implications to the existing organizational attraction and WHP literatures. Previous research on job advertisements has shown that job ads can influence organizational attraction. For example, some research found that wording in job ads is important, whether it was regarding position scarcity (Highhouse et al., 1998) or emphasizing a framing effect (Thorsteinson & Highhouse, 2003). The introduction of WHP programs in job advertisements in this study adds another dimension to further show the importance of the information included in job ads.

The current findings also add to WHP research. For example, these results support Muto and Yamauchi’s (2001) assertions regarding the importance of including multi-component WHP programs. Although the lack of a significant difference between Control and Basic programs was somewhat surprising, this extends previous research stating that health education interventions are vulnerable to low participation rates (Gucciardi et al., 2007). The current study’s findings showed that males scored lower in the Basic program than the Control program, which indicates the possibility that males may be more interested in participating in health-related activities than learning about health issues. Moreover, whereas the majority of past research has focused on actual
participation in WHP programs, this study investigated WHP programs in the context of job ads. Finally, the finding that the effect of WHP programs on organizational attraction was the same for males and females emphasizes the importance of further examining the role of gender in future WHP research. Although the main effect of gender was not of interest in the study, it is interesting to note that females were more likely to be attracted to the job than males, regardless of the level of the WHP program. This finding also suggests that the role of gender should be further examined in future organizational attraction research.

**Practical implications.** This study provides companies with findings that could be used to support the creation of a WHP program. Results suggest that participants are most attracted to and more likely to pursue a job at a company with a Comprehensive program than a company with no program or a company with a Basic program. Therefore, these findings indicate that if companies are utilizing a WHP program to attract talent, they should include a multitude of factors to ensure the program is comprehensive. Given that the definition of a Comprehensive program varies widely from study to study, a standardized definition should help further research in this area as well as help organizations determine what should be included in a comprehensive WHP program. Recent research has suggested that a Comprehensive program should include five elements: health education, supportive social and physical environments, integration of the worksite program into the organization, links between health promotion and related programs like employee assistance, and screenings followed by counseling and education (Goetzel et al., 2014). Therefore, these are aspects that companies may want to include in their WHP programs.
Another practical implication stems from the lack of a significant interaction effect between gender and type of WHP program on both general company attractiveness and job pursuit intentions. This finding suggests that companies may not need to specifically try to tailor their WHP programs to one gender because it should not impact organizational attraction. However, further research examining gender is needed prior to making any definitive conclusions regarding its role in relation between WHP programs and organizational attraction.

**Limitations and Future Research Suggestions**

This study has limitations that should be noted. First, the use of Amazon’s MTurk for research purposes was in its infancy stages when the data were collected. Although it allows for a more diverse subject population than most university participant pools, it is also very difficult to have any control on the participant population. Additionally, motivation for people willing to take part in the study for such a small fee could come into question. For example, it is possible they are willing to take part due to not being able to find work which could influence their attraction to any organization offering jobs. Therefore, future research should use different populations to assess the external validity of these findings.

An additional limitation is the use of a hypothetical organization and a hypothetical job ad. However, using a hypothetical company in this study enhanced the internal validity of the findings by manipulating only the factor of interest (i.e., workplace health promotion) and holding other factors constant (e.g., company name). Nevertheless, future research should benefit from conducting a field study using real organizations that have different types of WHP programs.
Another limitation was that the programs were not fully nested, meaning that the Comprehensive program should have been an expansion on the Basic one. By not including the same components from the Basic program in the Comprehensive program, it is difficult to identify specifically which characteristics might have caused the difference in organizational attraction. Additionally, the utilization of the term “Basic” for a program could be considered a study limitation because it does not seem realistic, as it is unlikely that a company would label one of its programs “basic.” Using this terminology may have negatively influenced participants’ perceptions of the program. Future research should examine whether labeling of programs used in job advertisements might impact applicant perceptions.

Another limitation that should be mentioned is the fact that 257 participants failed the recognition check item. This could have been due to the fact that the job advertisement also included information about the company’s “comprehensive benefits package,” which may have inadvertently led participants in the control and basic conditions to think that they read about a comprehensive WHP program in the job ad they viewed. However, further examination of the recognition item results revealed that this was probably not the case because the number of people who failed the recognition check was very similar across conditions. Therefore, a large number of people may have failed the recognition item due to the subtlety of the WHP program manipulation in the job advertisement.

An area for future research consideration is identifying which specific aspects of a comprehensive WHP program impact general company attractiveness and job pursuit intentions the most. Due to there not being a consistent definition for what constitutes a
comprehensive program, it is difficult to isolate which program quality has the most impact. Additionally, future studies can examine if using a fitness program as the main component of the Basic group instead of an educational component might affect applicant perceptions. Future organizational attraction research can also investigate the construct of Organizational Commitment Level, which Taitel, Haufle, Heck, Loeppke, and Fetterolf (2008) defined as “the structure that supports engagement and dissemination of health promotion programs” (p. 864). According to Taitel and colleagues, Organizational Commitment Level was one of the strongest predictors of health and productivity assessment completion rates. Therefore, further examining this construct may shed light on the effect of including a WHP program on organizational attraction.

**Conclusions**

In summary, there was a significant main effect of type of WHP program on general company attractiveness and job pursuit intentions. Specifically, company attractiveness and job pursuit intentions were rated significantly higher in the Comprehensive condition than in the Basic and Control conditions. These findings suggest that if companies want to develop a WHP program in order to attract applicants, they should include several factors to ensure that it is comprehensive.
Chapter VI

Summary

With a multitude of health-related issues plaguing the population, companies are feeling the strain through direct costs such as health care and indirect costs such as loss of productivity. Gates, Succop, Brehm, Gillespie, and Sommers (2008) found that moderately or extremely obese workers were 1.18% less productive than other workers due to not being able to perform physical duties and taking longer to complete tasks. Many companies have become proactive against health problems by enacting wellness campaigns with approximately 80% to 90% of employers offering at least one program in an attempt to cut back on health-related costs.

Although research has investigated the potential benefits of workplace health promotion programs for both employers and employees (e.g., Baicker, Cutler, & Song, 2010), there is a lack of research examining whether WHP programs are influential in attracting applicants. The main purpose of this study was to examine which type of program is seen as most attractive by potential applicants. Another important factor to consider is whether WHP programs’ potential effect on organizational attraction might differ for male and female applicants. Therefore, gender was also investigated in this study.

Workplace health promotion (WHP) programs are employer initiatives directed at improving health and well-being of workers, and in some cases, their dependents.
(Goetzel & Ozminkowski, 2008). A recent meta-analysis done at Harvard found that for every dollar an employer spends on a wellness program, their medical costs fall by $3.27 (Baicker et al., 2010). Health care savings are not the only benefit an employer yields because having WHP programs has also been associated with lower absenteeism. Companies that have wellness programs in place were able to significantly reduce absenteeism and, in one case, found $15.60 in savings for every dollar spent on the program (Aldana, Merrill, Price, Hardy, & Hager, 2005).

Previous studies have shown that there are short-term improvements in weight loss of typically 1 to 2 pounds per week (Hennrikus & Jeffery, 1996) and in lowering cholesterol (Glanz, Sorensen, & Farmer, 1996), but for employers to reap the financial benefits of programs, the changes will need to be maintained over time (e.g., Goetzel et al., 1998). Muto and Yamauchi (2001) conducted a study on the long-term effectiveness of a multi-component health promotion program used in Japan. The authors suggested that by using a multi-component model, the participants were exposed to more information than those using a basic model and the increased amount of material made the information more salient in the participants’ minds leading to better participation and more benefits.

The definition of a comprehensive program varies by article, but the overarching principle is that it is a program consisting of a combination of interpersonal, intrapersonal, organizational, and cultural factors. A meta-analysis done by Parks and Steelman (2008) categorized programs as being either fitness-only or comprehensive. The article found that comprehensive programs improved health through the fitness component and helped prevent health issues through the educational component. For the
purposes of this study, a comprehensive program is defined as consisting of a fitness component, educational component, and organizational component (e.g., on-site childcare). On the other hand, a program that has only one facet, such as the fitness-only programs discussed, is referred to as a basic program.

Overall, workplace health promotion is lacking extensive research on gender effects. However, there have been some studies investigating whether there are gender differences in using WHP programs (e.g., Robroek, van Lenthe, van Empelen, & Burdorf, 2009; Verdonk et al., 2010), and results have been somewhat mixed. Most research conducted seems to suggest that women, especially those who are well-educated and under 30, are more likely to participate in WHP programs than men (e.g., Janer & Kogevinas, 2008; Robroek et al., 2009; Sloan & Gruman, 1988; Trudeau, Deitz, & Cook, 2002). However, Robroek et al. (2009) found that there were no differences in male and female participation rates when the programs included access to fitness centers. Therefore, what is offered in the WHP program could potentially influence whether male and female employees participate in such programs.

Before the best workers can be brought into an organization, they need to be enticed into applying. One area that is especially relevant to initial decisions to apply deals with examining how reactions to job advertisements influence organizational attraction (Barber, 1998). Job advertisement research has addressed several important topics, such as how applicants react to diversity information (e.g., Avery, 2003; Williamson, Slay, Shapiro, & Shivers-Blackwell, 2008), how to attract African American applicants (e.g., Highhouse, Stierwalt, Bachiochi, Elder, & Fisher, 1999), and how to enhance a job advertisement’s effectiveness (e.g., Thorsteinson & Highhouse, 2003;
These studies illustrate the need for organizations to put serious thought into how job advertisements are organized and what information they include because it has a large impact on how potential applicants view the company.

However, this job ad literature lacks research investigating the effect of including workplace health promotion information in job advertisements on organizational attraction. The main purpose of this study, therefore, was to investigate whether including information about WHP programs in a job ad could increase organizational attraction. Moreover, based on the previous discussion on gender differences in participating in WHP programs, the moderating effect of gender on this relation was also investigated. Specifically, the following hypotheses were developed:

**Hypothesis 1a:** There will be a significant main effect of type of workplace health promotion program on organizational attractiveness, such that participants will perceive the company with the comprehensive workplace health promotion program as the most attractive, followed by the company with the basic workplace health promotion program, followed by the company with no workplace health promotion program; all the means will be significantly different from each other.

**Hypothesis 1b:** There will be a significant main effect of type of workplace health promotion program on job pursuit intentions, such that participants will be most likely to pursue a job at the company with the comprehensive workplace health promotion program, followed by the company with the basic workplace health promotion program, followed by
the company with no workplace health promotion program; all the means will be significantly different from each other.

H2a: There will be a significant interaction between gender and type of workplace health promotion program on organizational attractiveness, such that the effect of workplace health promotion on organizational attractiveness will be stronger for females than males.

H2b: There will be a significant interaction between gender and type of workplace health promotion program on job pursuit intentions, such that the effect of workplace health promotion on job pursuit intentions will be stronger for females than males.

Method

Participants

Participants were recruited using Amazon’s Mechanical Turk (MTurk) website, which is an online labor market where workers choose which human intelligence tasks (HITs) they will do for a set price. They were paid $0.50 to complete the estimated 15-minute survey. MTurk workers were eligible to participate if they lived in the United States and had a HIT approval rate of at least 95%. The final sample consisted of 317 participants, with 169 males (53.3%) and 148 females (46.7%). The average age of participants was 33.9 years (SD = 12.3).

Materials and Measures

Job advertisements. Job ads were created for entry-level associate positions in an imaginary company, and they were similar to other ads used in the literature (e.g., Highhouse, Brooks- Laber, Lin, & Spitzmueller, 2003; Reeve & Schultz, 2004). One ad
contained information regarding a comprehensive WHP program, one ad contained a basic WHP program, and one had no reference to a WHP program (see Appendix A).

**Recognition, quality, and manipulation checks.** The recognition item asked participants whether or not a WHP program had been offered. There were also two quality checks to ensure participants were reading each question carefully. Finally, exploratory manipulation check items were administered to provide further evidence that the manipulation worked, where participants had to rate a few statements using a 5-point response format. Please refer to Appendix B for all these items.

**Organizational attraction.** Organizational attractiveness and job pursuit intentions were used to measure organizational attraction. These represent two dimensions of an organizational attraction measure that Highhouse, Lievens, and Sinar (2003) developed (see Appendix C for the relevant reference). In this study, coefficient alphas were .90 and .86 for general company attractiveness and job pursuit intentions, respectively. Both scales used a 5-point response format ranging from 1(*strongly disagree*) to 5(*strongly agree*).

**Procedure**

Institutional Review Board (IRB) approval was attained through Xavier University’s IRB (see Appendix D). After IRB approval was granted, participants were recruited using Amazon’s Mechanical Turk (MTurk) website (see Appendix E). Participants completed the survey online through the use of SurveyGizmo.com. When participants accessed the survey, they were directed to an informed consent form (see Appendix F). After agreeing to participate in the study, participants were randomly assigned to one of three job ads, representing the three conditions. After they read the job
ad, participants were asked to complete the organizational attractiveness and job pursuit intentions scales. Then, they had to complete the manipulation check items and a few demographic items (see Appendix G). Once they submitted this information, they were directed to a debriefing form (see Appendix H). Although all participants who completed all the required items and passed both quality checks got paid for participating in this study, those who failed the recognition manipulation check were discarded prior to running any data analyses.

Results

Main Analyses

A 2 x 2 between-subjects factorial analysis of variance was conducted to examine the effects of gender and type of WHP program on general company attractiveness (see Tables 1 and 2). As predicted in Hypothesis 1a, there was a significant main effect of type of WHP programs on company attractiveness, $F(2, 311) = 10.70, p < .001$. Post-hoc analyses using Scheffe’s method indicated a significant difference between the Control and Comprehensive groups ($p = .002$), as well as a significant difference between the Basic and Comprehensive groups ($p < .001$); both findings were in the hypothesized direction. Contrary to expectations, the Control program was rated higher on company attractiveness than the Basic program, but the difference was not statistically significant ($p = .425$). Therefore, Hypothesis 1a was partially supported. Results also revealed that there was not a significant interaction between gender and type of WHP programs on company attractiveness, $F(2, 311) = 1.10, p = .333$; therefore, Hypothesis 2a was not supported.
A 2 x 2 between-subjects factorial analysis of variance was also conducted to examine the effects of gender and type of WHP program on job pursuit intentions (see Tables 1 and 2). As predicted in Hypothesis 1b, there was a significant main effect of type of WHP program on job pursuit intentions, $F(2, 311) = 6.71, p = .001$. Post-hoc analyses using Scheffe’s method indicated a significant difference in job pursuit intentions between the Control and Comprehensive groups ($p = .007$), as well as the Basic and Comprehensive groups ($p = .004$); both findings were in the expected direction. However, there was no statistically significant difference in the means between the Control and Basic programs ($p = .907$). Therefore, Hypothesis 1b was partially supported. There was not a significant interaction between gender and type of WHP program on job pursuit intentions, $F(2, 311) = 0.92, p = .400$; therefore, Hypothesis 2b was not supported.

**Exploratory Analyses**

A series of one-way between-subjects analyses of variance were conducted on the five exploratory manipulation check items to further examine if the manipulation of the type of WHP program was effective. All effects were statistically significant at the .001 level; therefore, post-hoc analyses were done using Scheffe’s method. Both the items “offers onsite childcare,” $F(2, 314) = 182.65, p < .001$, and “helps employees quit smoking,” $F(2, 314) = 115.70, p < .001$, indicated a significant difference between the Control and Comprehensive groups, as well as the Basic and Comprehensive groups, in the expected direction, with the Comprehensive condition having the highest mean and the Basic condition having the lowest mean. As expected, there were significant differences among all three groups for the remaining three items. The results were also in
the expected direction, with the Comprehensive condition having the highest mean and
the Basic condition having the lowest mean, for the following items: “is focused on
improving employee physical fitness,” $F(2, 314) = 106.78, p < .001$; and “offers its
employees a variety of ways to improve their health,” $F(2, 314) = 113.88, p < .001$.
Although the item “facilitates health improvement seminars for employees” was also
significant, $F(2, 314) = 47.26, p < .001$, interestingly, the Basic condition had the highest
mean and the Control condition had the lowest mean. However, further evaluation of this
item revealed that facilitating “health improvement seminars” was not mentioned in the
Comprehensive condition. Therefore, this finding provides further evidence that the
manipulation of WHP program level was successful.

Discussion

The purpose of this study was to determine the effect of WHP programs on
organizational attraction. Specifically, the focus was to investigate whether information
in job ads regarding the level of WHP program would influence a company’s perceived
attractiveness and people’s desire to pursue the job. The levels examined were no
program (control condition), a basic program (consisting of annual health risk appraisals,
monthly health improvement seminars, and weekly newsletters), and a comprehensive
program (consisting of biannual health risk appraisals, unlimited on-site gym access, on-
site healthcare, a personal health therapist, and the opportunity to take part in our
smoking cessation program). The potential interaction between type of WHP program
and participant gender on organizational attraction was also examined.

It was hypothesized that there would be a main effect of type of WHP program on
general company attractiveness, with participants perceiving the Comprehensive program
as the most attractive, followed by the Basic program, and then the Control program. Additionally, it was hypothesized that there would be a similar main effect of type of WHP program on job pursuit intentions, with participants most likely to pursue a job at the company with the Comprehensive program, followed by the company with the Basic program, and then the company with the Control program. As expected, the findings showed a significant main effect of type of WHP program on general company attractiveness. Specifically, there were significant differences between the Control and Comprehensive programs, as well as the Basic and Comprehensive programs, with the general attractiveness being rated significantly higher than both of the other conditions. Therefore, general attractiveness was rated similarly in both the Basic and Control conditions. Along similar lines, there was a significant main effect of type of WHP program on job pursuit intentions. The Comprehensive program had the highest mean, but there was no significant difference between the Control and Basic programs. Similar to general attractiveness, there were significant differences between the Control and Comprehensive programs, as well as the Basic and Comprehensive programs, but there was no statistically significant difference between the Control and Basic programs.

For both dimensions of organizational attraction examined in this study, the Comprehensive WHP program had the highest mean. In other words, participants were most attracted to and most likely to pursue a job at the company with the Comprehensive program than a company with no program or a company with a Basic program. These results extend findings in prior WHP research. For example, Muto and Yamauchi (2001) asserted that multi-component WHP programs were more effective long term. Eighteen months after implementing a multi-component health promotion program in Japan, the
authors found that employees were able to reduce obesity, high blood pressure, and hyperlipidemia. Our findings suggest the multi-component aspect of a WHP program may also increase organizational attraction and is more effective than a basic program. The lack of a significant difference between Control and Basic programs was somewhat surprising; however, this finding can be potentially explained by how we operationalized “Basic” in this study. Specifically, this condition consisted solely of an educational component. Given that previous research has found that health education interventions are vulnerable to low participation rates (Gucciardi, Cameron, Liao, Palmer, & Stewart, 2007), focusing on only an “educational” component may have resulted in the lack of significant difference in organizational attraction between the basic and control conditions.

It was also hypothesized that there would be a significant interaction between gender and type of WHP program on general company attractiveness and job pursuit intentions, with the effect being stronger for females than males. Contrary to expectations, there was not a significant interaction effect between gender and type of WHP program on either dimension of organizational attraction. These findings suggest that the effect of WHP programs on both general company attractiveness and job pursuit intentions is the same for males and females, which seems contrary to the majority of the research suggesting that women are more likely to participate in WHP programs than men (e.g., Glasgow et al., 1993), but it is also important to note that past research has focused on actual participation in WHP programs, not organizational attraction. However, this finding is similar to other research that examined WHP participation rates across gender. For example, according to Robroek et al. (2009), programs that provide
incentives, have a multi-component strategy, and focus on multiple behaviors have higher overall participation levels. Moreover, they found that there was no difference in participation by gender when the WHP program included a fitness center. Robroek et al.’s findings could help explain the lack of gender differences in this study.

**Theoretical and Practical Implications**

The results of this study have important theoretical implications to the existing organizational attraction and WHP literatures. Previous research on job advertisements has shown that job ads can influence organizational attraction. For example, some research found that wording in job ads is important, whether it was regarding position scarcity (Highhouse et al., 1998) or emphasizing a framing effect (Thorsteinson & Highhouse, 2003). The introduction of WHP programs in job advertisements in this study adds another dimension to further show the importance of the information included in job ads. The current findings also add to WHP research. For example, these results support Muto and Yamauchi’s (2001) assertions regarding the importance of including multi-component WHP programs.

This study provides companies with findings that could be used to support the creation of a WHP program. Results suggest that participants are most attracted to and more likely to pursue a job at a company with a Comprehensive program than a company with no program or a company with a Basic program. Therefore, these findings indicate that if companies are utilizing a WHP program to attract talent, they should include a multitude of factors to ensure that the program is comprehensive. Given that the definition of a Comprehensive program varies widely from study to study, a standardized definition should help further research in this area as well as help organizations determine
what should be included in a comprehensive WHP program. Recent research has suggested that a Comprehensive program should include five elements: health education, supportive social and physical environments, integration of the worksite program into the organization, links between health promotion and related programs like employee assistance, and screenings followed by counseling and education (Goetzel et al., 2014). Therefore, these are aspects that companies may want to include in their WHP programs.

**Limitations and Future Research Suggestions**

This study has limitations that should be noted. First, the use of Amazon’s MTurk for research purposes was in its infancy stages when the data were collected. Although it allows for a more diverse subject population than most university participant pools, it is also very difficult to have any control on the participant population. Additionally, motivation for people willing to take part in the study for such a small fee could come into question. Therefore, future research should use different populations to assess the external validity of these findings.

An additional limitation is the use of a hypothetical organization and a hypothetical job ad. However, using a hypothetical company in this study enhanced the internal validity of the findings by manipulating only the factor of interest (i.e., workplace health promotion) and holding other factors constant (e.g., company name). Nevertheless, future research should benefit from conducting a field study using real organizations that have different types of WHP programs.

An area for future research consideration is identifying which specific aspects of a comprehensive WHP program impact general company attractiveness and job pursuit intentions the most. Due to there not being a consistent definition for what constitutes a
comprehensive program, it is difficult to isolate which program quality has the most impact. Overall, these findings suggest that if companies want to develop a WHP program in order to attract applicants, they should include several factors to ensure that it is comprehensive.
References


doi:10.1177/0013164403258403


Entry-Level Associate

Sullivan & Hughes Inc., a rapidly growing industry leader, is looking for entry-level associates across many departments. All majors, areas of expertise, and levels of relevant experience welcome!

On average, our employees are very satisfied with their work. We offer competitive salaries based on education level, past experience, and office location. We care about our employees’ quality of life so all employees are given a comprehensive benefits package.

*We also offer an optional comprehensive health promotion program, which includes biannual health risk appraisals, unlimited on-site gym access, on-site childcare, a personal health therapist, and the opportunity to take part in our smoking cessation program by partnering with former smoking employees.

Sullivan & Hughes Inc. is an Equal Employment Opportunity (EEO) and an Affirmative Action (AA) employer.

For more information and to apply to this position online, please visit our website at: www.sullivanhughes.com

* The job ad will be the same for the basic program but this sentence will be included instead: “We also offer an optional basic health promotion program, which includes annual health risk appraisals, monthly health improvement seminars, and weekly newsletters on nutrition and exercise.” The control condition will not mention anything about a workplace health promotion program.
Appendix B

Recognition, Quality, and Manipulation Checks

Recognition Check

Did Sullivan & Hughes offer a workplace health promotion program?
- No program was mentioned
- Yes, a basic program was offered
- Yes, a comprehensive program was offered

Quality Checks

For this item, select option Agree.
- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree nor Disagree
- 4 = Agree
- 5 = Strongly Agree

For this item, select option Disagree.
- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree nor Disagree
- 4 = Agree
- 5 = Strongly Agree

Manipulation Check

Based on the job ad you read, Sullivan & Hughes...
- offers on-site childcare.
- is focused on improving employee physical fitness.
- facilitates health improvement seminars for employees.
- helps employees quit smoking.
- offers its employees a variety of ways to improve their health.

*Each item was answered using a 5-point response format with 1 (strongly disagree) and 5 (strongly agree).
Appendix C

Organizational Attraction Measure

This scale is not reproduced for copyright reasons, but below is the reference for this measure:

February 18, 2013

Chris Fromhold
2929 Griest Ave. Apt. 1
Cincinnati, OH 45208

Re: Protocol #1254, The Effect of Workplace Health Promotion Programs on Organizational Attraction

Dear Mr. Fromhold:

The IRB has reviewed the materials regarding your study, referenced above, and has determined that it meets the criteria for the Exempt from Review category under Federal Regulation 45CFR46. Your protocol is approved as exempt research, and therefore requires no further oversight by the IRB. We appreciate your thorough treatment of the issues raised and your timely response.

If you wish to modify your study, including the addition of data collection sites, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately.

Please contact our office if you have any questions. We wish you success with your project!

Sincerely,

Morell E. Mullins, Jr., Ph.D.
Chair, Institutional Review Board
Xavier University

MEM/ab

C: Dalia Diab, Advisor
Appendix E

MTurk Interface

Please note that you will have to enter your unique ID TWICE, once HERE and once at the END of the study in order to be compensated, if eligible.

1. Please enter your unique identifier located on the MTurk Dashboard. **You must enter your MTurk ID HERE:** [https://www.mturk.com/mturk/dashboard](https://www.mturk.com/mturk/dashboard). Also, please **SAVE** your unique identifier because you will be required to enter it once again AT THE END OF THE STUDY.

2. Please click the following link in order to access the survey. After you complete the survey, click the “Submit” button below.

[Survey Link will be added once survey is completed]

[SUBMIT]
Appendix F

Informed Consent Form

You are being given the opportunity to volunteer to participate in a master’s thesis project conducted by Chris Fromhold through Xavier University. The purpose of this study is to investigate perceptions of job ads. In this study, you will read a short job ad about a company and answer questions based on your perceptions of that job ad. You will also be asked to respond to a few demographic items. The total time to complete this task will be approximately 15 minutes, but you will be given 1 hour to complete the entire survey.

There are no known risks associated with this study. Participation in this study is entirely voluntary. You are free to withdraw from the study at any time without penalty. Refusal to participate in this study will have no effect on any future services you may be entitled to from Xavier University. You will be paid $0.50 for participating in this study. However, please note that if you do not complete all required items or if you do not pass the quality and manipulation checks, you may not be eligible for compensation. You have to be at least 18 years old to participate in this study.

Although you will be required to enter your MTurk unique worker ID at the end of the survey to receive compensation if eligible, the researchers will not be able to access any identifying information you provided to Amazon or MTurk. Moreover, the researchers will not release any of your survey responses to Amazon or MTurk, and only the researchers conducting this study will have access to your responses. Therefore, your responses will remain anonymous. Finally, no analyses of any kind will be conducted prior to the removal of all MTurk ID numbers from the data set.

If you have any questions at any time during the study, you may contact the principal investigator, Chris Fromhold, at fromholdc@xavier.edu, or the faculty advisor, Dr. Dalia Diab, at diabd@xavier.edu. Questions about your rights as a research subject should be directed to Xavier University’s Institutional Review Board at 513-745-2870.

By clicking “Next,” you agree to the following statement: I have been given information about this research study and its risks and benefits and have had the opportunity to ask questions and to have my questions answered to my satisfaction. I freely give my consent to participate in this research project.
Appendix G

Demographic Items

Age _____

Gender
- Male
- Female

Race/Ethnicity
- White or Caucasian
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- Hispanic or Latino
- Other ______________

Nationality ______

What country do you live in? (e.g., USA) ______

Level of Education
- Below High School
- High School Diploma or equivalent
- Some college, no degree
- Associate’s Degree
- Bachelor’s Degree (e.g., BA)
- Master’s Degree (e.g., MBA)
- Doctoral Degree (e.g., PhD)

Are you currently employed?
- Yes
- No

If yes, are you employed part-time or full-time?
- Part-time
- Full-time

Are you currently searching for a job?
- Yes
- No
How long have you been searching for a job? (indicate whether your answer is in "years" or "months" by writing the appropriate word)? ______________

If you are not currently searching for a job and you are not currently employed, when do you plan on searching for a job?

- Later this year (2013)
- Year 2014
- Year 2015
- Year 2016
- Year 2017 or later

Have you ever been previously employed?

- Yes
- No

Years of overall work experience (if in months, please write the word months after the number) ______
Appendix H

Debriefing Form

Thank you for participating in our research project. The purpose of this study is to investigate the effect of workplace health promotion program (no program vs. basic program vs. comprehensive program) on organizational attractiveness and job pursuit intentions. Another purpose is to investigate whether gender moderates the effect of workplace health promotion on organizational attractiveness and job pursuit intentions.

You were randomly assigned to one of three job ads, representing the three conditions in this study. The company and job ads used in this study are fictitious. Please do not discuss the specifics of our study with anyone or distribute this form to any potential participants, as data collection is ongoing. If you have any questions or concerns, or if you would like to inquire about the results of this study, please contact the principal investigator, Chris Fromhold, at fromholdc@xavier.edu, or the faculty advisor, Dr. Dalia Diab, at diabd@xavier.edu.