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# Employees' Interests and Preferences Regarding Worksite Exercise Programs

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By

Amber K. Butcher

A Thesis Submitted in Partial Fulfillment of the

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Master of Science

In

Community Health Education

Minnesota State University

Mankato, Minnesota

May 2015

Employees' Interests and Preferences Regarding Worksite Exercise Programs

Amber K. Butcher

This thesis has been examined and approved by the following members of the thesis committee.

Professor Dr. Amy Hedman, advisor

Professor Dr. Judith K. Luebke

Professor Dr. Howard Miller

# Abstract

Employees' Interests and Preferences Regarding Worksite Exercise Programs

Amber K. Butcher, M.S. Minnesota State University, Mankato, May 2015

In order to address the problem of an unhealthy workforce, employers often implement disease prevention and health promotion strategies, referred to as worksite wellness programs. The purpose of this study was to examine employees' interests and preferences regarding worksite exercise programs. To collect data, a 12 item survey was developed and administered to employees from a company based in Rochester, Minnesota. A total of 21 participants completed the survey (66.7% male, 28.6% female). The mean age was 51 years old. The findings of the study indicated an interest in worksite exercise programs and that incentives may motivate employees to participate in the worksite exercise programs. Recommendations for further study include a need to collect data from other companies and geographical locations, providing a more comprehensive understanding of employees' interests and preferences regarding worksite exercise programs.

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#### **Chapter I – Statement of the Problem**

# Introduction

Worksite wellness exercise programs have become increasingly popular due to the fact that physical fitness may aid in decreasing lost productivity at work. This lost productivity can be attributed to poor health. Baicker, Cutler, and Song (2010) found in their study that "medical costs fall by about \$3.27 for every dollar spent on wellness programs and that absenteeism costs fall by about \$2.73 for every dollar spent" (p. 1).

"Full-time workers in the U.S. who are overweight or obese and have other chronic health conditions miss an estimated 450 million additional days of work each year compared with healthy workers -- resulting in an estimated cost of more than \$153 billion in lost productivity annually" (Witters & Agrawal, 2011, p.1). It is not only absenteeism that is a factor for lost productivity, but presenteeism can also make a large impact. Aronsson, Gustafsson, and Dallner (2000) determined that one-third of their study participants reported that they had gone to work at least two times within the past year despite the fact that they were ill and should have taken sick leave. Mattke et al. (2013) concluded that workplace wellness programs do increase healthy behaviors, including exercise.

In order to motivate employees to exercise, many worksite exercise programs use incentives. These incentives can be either monetary or non-monetary. Examples of cash incentives are gym memberships, insurance reimbursements, Health Savings Account (HSA) contributions, or gift cards. Non-monetary incentives could include verbal recognition or flexible working schedules.

"The RAND Employer Survey results indicate that nationally, more than twothirds of employers (69 percent) with at least 50 employees and workplace wellness programs use financial incentives to encourage program uptake" (Mattke et al., 2013, p. xx). Furthermore, Mitchell et al. (2013) found "that even modest incentives may increase exercise adherence in adults" (p. 664).

It is important for employers to take into consideration employees' opinions in the wellness planning process. This is so employers can comprehend the value employees place on various components such as program structure, activities, and incentives. "Feedback allows management to understand the employee perspective" (RAND, 2013, p. 43).

# **Statement of the Problem**

"According to the RAND Employer Survey, fewer than half of employees (46 percent) undergo clinical screening and/or complete a health risk assessment (HRA), which are typically used to identify employees for interventions. Of those identified for an intervention based on screening results, a fifth or less chose to participate" (Mattke et al., 2013, p. xvi-xvii). There are numerous reasons why employees choose not to participate in worksite wellness programs. The results of the 2004 National Worksite Health Promotion Survey found that the number one reason that employees choose not to

participate in wellness programs was due to lack of interest (Linnan, Bowling, Childress, Lindsay, & Blakey, 2008).

A Duke University study published in 2013 found that health care costs climb with each increase over 19 in people's body mass index (BMI). The researchers suggested that wellness programs which encourage people to lose weight could save employers money (Ostbye et al., 2013).

# Need for the Study

The purpose of this study was to examine employee interests and preferences regarding worksite exercise programs. Increasing employee involvement in the assessment of wellness programs may lead to increased participation rates. This is important to the health education discipline because physical inactivity is a large risk factor for not only chronic diseases like obesity, cancer, and diabetes, but also poor psychological well-being including stress, anxiety, and depression (Warburton, Nicol, & Bredin, 2006). These diseases lead to economic burdens for employers, specifically increased sick time and reduced performance while at work.

"While the number of employers offering health and productivity programs continues to increase, the persistent lack of employee participation is troubling and costly. Employers can start by understanding what employees value" (Towers Watson, 2013, p. 23). Recognizing employee interests and preferences will help employers design worksite exercise programs and potentially increase participation rates.

# **Research Questions**

- 1. Among a sample of employees, what are reported physical activity levels?
- 2. Among a sample of employees, what are reported interest levels in worksite exercise programs?
- 3. In what types of worksite exercise programs would sampled employees likely participate?
- 4. What are sampled employees' preferences regarding incentives to participate in worksite exercise programs?

# Limitations

- 1. This is a convenience sample as study participants are employed at one company.
- 2. The sample is small so findings will not be representative of the entire population.
- 3. The survey is a self-analysis so rely on accuracy of participant answers.

# Delimitations

- 1. To be included in this study, participants must have been employed at the study company during the first quarter of 2015.
- 2. The survey was only available for 2 weeks in 2015.

# Assumptions

- 1. Participants are interested in worksite exercise programs.
- 2. All participants answered the surveys honestly and to the best of their ability.

# **Definition of Terms**

The following terms were defined for this study:

Absenteeism – Time (absence) away from work (Taylor, Pocock, & Sergean, 1972).

**Exercise** – "Physical activity that is planned, structured, repetitive, and purposive in the sense that improvement or maintenance of one or more components of physical fitness is an objective" (Caspersen, Powell, & Christenson, 1985, p. 128).

**Incentives** – "An object, item of value, or desired action or event that spurs an employee to do more of whatever was encouraged by the employer through the chosen incentive" (Heathfield, 2014, para. 1).

**Presenteeism** – Occurs when an employee is at work but is not fully functioning due to physical illness, mental health issues, or other medical conditions (Hemp, 2004).

**Worksite wellness programs** – Employer-sponsored programs that "promote good health through prevention, reduce chronic illness and disability, and improve productivity outcomes that contribute to employers' competitiveness" (Centers for Disease Control and Prevention (CDC), 2013a, para. 1).

#### **Chapter II – Literature Review**

#### Introduction

The purpose of this research was to examine employees' interests and preferences regarding worksite exercise programs. This chapter reviews literature related to worksite wellness and exercise programs. This includes: 1) an overview of worksite wellness programs, 2) review of sample worksite programs, 3) employee interest in worksite wellness programs, 4) prevalence of worksite exercise programs, 5) the use of incentives in worksite exercise programs, 6) characteristics of worksite exercise programs, 7) participation barriers of worksite exercise programs, and 8) application of this topic to the Theory of Reasoned Action.

#### **Worksite Wellness Overview**

"The cost of absenteeism is easy to calculate: 100 percent of the worker's productivity is lost each day that the worker is not on the job" (Middaugh, 2007, p. 172). It is not only absenteeism that is a factor for lost productivity, as presenteeism can also make a large impact. Presenteeism occurs when employees are at work but not fullyfunctioning due to illness or medical conditions and is more difficult to evaluate (Hemp, 2004). Pronk and associates found in their study of 683 workers that obesity was related to absenteeism whereas physical activity led to employers being present on the job with higher job performance (2004). In order to combat the problem of an unhealthy workforce, employers often implement disease prevention and health promotion strategies, referred to as worksite wellness programs. These programs may be one-time interventions or ongoing programs. They may be offered by outside vendors, insurance companies, or the employers themselves. "The workplace provides an ideal setting for a health promotion program because of the potentially large audience, consistent exposure times, and the opportunity for a collegial support system" (Gazmararian, Elon, Newsome, Schild, & Jacobson, 2013, p. 32). According to a 2012 survey by the Kaiser Family Foundation (KFF) and the Health Research & Educational Trust, two thirds of companies that have three or more employees and provide health benefits offer at least one wellness program (KFF, 2012).

The University of Iowa (2014) instituted a program called *Organizational Effectiveness* (OE) to improve the health, performance, and engagement of their employees. A significant part of their program was the Live Healthy Iowa Challenge which encouraged group participation in fitness activities. According to the University of Iowa (2014) Annual Report, OE assisted 18,160 faculty and staff through both group and individual services. Examples of these services include: an online healthy living portal, liveWELL social media communication platform, and an ergonomics program. The University's program demonstrated "a positive impact on risk reduction and the number of days staff are away from work due to illness" (p. 7). Risk reduction pertains to happier employees with fewer health problems, fewer sick days, less worry and stress. From 2011 to 2013, employees "in the high risk category reported approximately 13-22 hours more sick leave use per year as compared to lower-risk individuals. Individuals moving to lower-risk categories result in an annual cost savings and avoidance of up to \$3.2 million" (p. 7).

#### Sample Worksite Exercise Programs

Mattke et al.'s (2013) study focused on four wellness programs from various employment sectors. The researchers found "positive effects of worksite wellness programs on health-related behavior and health risks among program participants" (Mattke et al., 2013, p. 16). Below are the wellness programs described in Mattke et al.'s study by organization type, wellness goals, exercise activities, incentive plans, and participation rates.

# 1. large university.

*goal.* To help faculty, staff, and students develop healthy lifestyles, manage stress, balance work/personal lives, and improve morale and productivity. *activities.* The University conducted health/wellness lectures, yoga, meditation, massage therapy, Weight Watchers at work, healthy meal service, walking program, monthly health screenings, telephonic health coaching, and smoking cessation programs.

*incentives.* The University imposed \$50 insurance premiums to smokers which would be waived if employees elected to quit by using smoking cessation products or attending smoking cessation meetings. Program leaders did not

believe in giving financial incentives to the employees so instead donated food and money to area charities.

*participation rate*. The University found that women participated more often than men.

*effectiveness.* The largest challenge was low participation rates. To increase awareness, they plan to focus on social media as a communication strategy. The University did not track health data initially and realized their error so began collecting information such as weight and blood pressure. The University's school of business conducted a study and concluded that the program showed a financial return of \$2 - \$12 for every dollar spent (Mattke et al., 2013, p. 9 – 21).

# 2. state government agency.

*goal.* To contain healthcare costs by reducing health risk factors. *activities.* Programs included coaching sessions led by exercise physiologists and group fitness activities. Physical activities incorporated were walking challenges (groups formed to tally miles for a specific distance like the Appalachian Trail or Lisbon to London), 5K events, weekly lunchtime fitness classes (yoga, Pilates, Zumba for \$3-\$5 per class), free team sports (volleyball, basketball, softball), and parking lot line dancing. This agency also began allowing employees to use fitness facilities previously used by residents/patients only, added exercise equipment and fitness videos to small rooms, and created a 15-minute walking loop that did not require crossing a street. *incentives.* Wellness groups, rather than individuals, received incentives in order to further promote participation and planning of future activities. The agency rewarded participation rather than health outcomes by awarding exercise equipment, pedometers, and audio equipment for the line dancing.

# participation rate. 50%

*effectiveness*. Employees' surveyed between 2006 to 2010 reported a significantly higher positive health behavior change if they participated in the programs than those who did not. One of the largest healthy living improvements was the policies supporting exercise: 65% of facilities offered fitness classes in the past year, 57% of facilities provided indoor fitness areas, 51% organized walking clubs, and 38% reported policies supporting physical activity during the workday (Mattke et al., 2013, p. 22 – 35).

#### 3. large service organization.

goal. To control costs and improve productivity.

*activities*. The organization piloted biometric screenings, competitive fitness programs (walking challenges, 5K events, marathon training, "take the stairs" campaigns), weight-loss program, healthier food options, on-site fitness facilities, reimbursement programs (smoking cessation, Weight Watchers, gym memberships), health newsletters and webinars, telephonic health coaching, nurse hotline, and "lunch and learn" seminars.

*incentives*. Employer-based: Employees received \$20 if they completed biometric screenings, received \$20 for achieving health goals, chance at raffles for attending biometric screening events. Insurance Plan – Employees received \$50 for completing health questionnaire and another \$50 for completing lifestyle management program.

*participation rate.* Forty-one percent participated in at least one health activity,
33% attended biometric screenings, and 26% utilized on-site fitness facility.
Women were 60% more likely to participate in activities than men. *effectiveness.* A focus group study reported that implementing flexible working schedules in order to exercise improved productivity rates. After seeing the success of their exercise programs, the organization plans to continue efforts towards increasing exercise. Planned projects include: a marathon training program, a 'take the stairs' campaign, and walking challenges incorporating causes such as the American Heart Association (Mattke et al., 2013, p. 36 – 50).

# 4. manufacturing company.

*goal.* To lower healthcare costs and create healthier employees by changing behaviors.

*activities*. The company subsidized gym memberships at \$25/month. They created a "Get to the Heart of the Matter!" program designed to track walking distance, and a "Commit to be Fit!" program which built awareness for exercise and nutrition by earning points for meeting weekly fitness and nutrition goals.

*incentives*. Health Plan –The company tied financial incentives to employees' abilities to meet specific health outcomes like body mass index (BMI). Incentives included prizes (duffel bags, t-shirts, cookbooks, theme park tickets, yoga mats) for winning program challenges (Commit to be Fit!).

*participation rate.* The company did not formally track participation except in their weight loss challenge where only 10% (n = 629) participated. Of that 10%, almost 25% (n = 140) were employed at the corporate headquarters. The challenge was to get the manufacturing employees involved.

*effectiveness*. There was a reported disconnect between organizational leaders and the manufacturing employees. The leaders have a strong interest in exercise programs whereas the employees who stand on their feet all day do not find exercise as an appealing approach to health improvement (Mattke et al., 2013, p. 51-63).

As shown by the above programs, wellness activities take many forms. Once employers identify health risks, they then create interventions that will aid in promoting healthy lifestyles. Determining company culture will help in developing "audienceappropriate and effective interventions" (Mattke et al., 2013, p. 110).

#### **Employee Interests in Worksite Wellness Programs**

"Because working adults spend more than one third of their total time at their place of employment, implementing wellness programs at the work site provides an opportunity for improved health and wellness to a captive audience" (Bright et al., 2012, p. 530). A study was conducted at Ohio Northern University (ONU) in order to define employee preferences and barriers regarding participation in a worksite health and wellness program. Researchers found that there was a desire for these types of programs. Respondents were interested in meeting with a pharmacist to talk about medication usage, self-care options, preventative care counseling, nutritional coaching, and exercise programs. Nearly 90% of respondents indicated a desire to participate in exercise programs such as walking clubs, yoga, weight training, and dance classes (Bright et al., 2012).

For worksite wellness programs, there are noted differences in interest levels between blue-collar and white- collar workers. Leslie, Braun, Novotny, & Mokuau (2013) conducted a study of 57 people employed at one company. Eighteen of the employees were classified as white-collar and 39 were classified as blue-collar. As white-collar workers typically have more sedentary jobs than their counterparts, there was greater interest in worksite exercise programs. White-collar workers voiced interest in access to fitness opportunities, such as having the ability to use the office stairs and availability to attend fitness classes like aerobics and yoga. On the other hand, those with blue-collar jobs indicated that their jobs, already physically active, were enough and they did not feel the need for further exercise activities.

Studies have also shown that blue-collar workers were more likely to participate in worksite programs if there was support from management. This was less common for white-collar workers (Linnan, Weiner, Graham, & Emmons, 2007).

#### **Prevalence of Worksite Exercise Programs**

According to the Kaiser Family Foundation's (KFF) Annual Employer Health Benefits 2014 Study, many firms offer wellness programs with "large firms (200 or more workers) being more likely than small firms (3-199 workers) to do so" (p. 234). Further, it is becoming increasingly common for companies to offer health risk appraisals (HRAs). HRAs question employees about their lifestyle, medical history, and health status. These questionnaires assess health risks and provide information about participants' quality of life. Thirty-three percent of companies that offer health benefits gave employees the opportunity to complete an HRA (KFF, 2014). HRAs are used for enrolling employees into health plans and for information gathering in order to create wellness programs by identifying risk factors and linking people with appropriate interventions (CDC, 2010).

"In 2006, 19 percent of companies with 500 or more workers reported offering wellness programs, while a 2008 survey of large manufacturing employers reported that 77 percent offered some kind of formal health and wellness program" (Baicker et al., 2010, p. 1). This number continues to rise "as 92 percent of employers with 200 or more employees reported offering them in 2009. Survey data indicate that the most frequently targeted behavior is exercise, addressed by 63 percent of employers with programs" (Mattke et al., 2012, p. 5). Further analysis of wellness program offerings revealed that 26% of small firms (3-199 employees) and 64% of large firms (200 or more employees) offered gym membership discounts or on-site exercise facilities (KFF, 2014).

Wellness programs are relatively new interventions; 10 years ago KFF did not even survey employers about wellness programs. KFF's interest in wellness programs did not start until 2005 when they surveyed employers and found that only 8% of small firms and 34% of large firms offered fitness programs or on-site health club facilities (KFF, 2005).

As shown by the KFF data, wellness programs were less frequently studied a decade ago, yet today they are frequently acknowledged within organizations. According to the study conducted by Mattke et al. (2013), "workplace wellness programs have emerged as a common employer-sponsored benefit that is now available at about half of U.S. employers with 50 or more employees" (p. 105).

# **Use of Incentives in Worksite Exercise Programs**

"Incentives can help lead to a change or maintain a change in the current state of workplace health, help gain/retain participation in a program, and support healthier behaviors" (CDC, 2013b, p. 16). Incentives can be either monetary or non-monetary. Examples of monetary incentives are insurance reimbursements, Health Savings Account (HSA) contributions, gym memberships, or gift cards. Non-monetary incentives could include verbal recognition or flexible working schedules. The incentive distribution channels can be broken down into three groups; participation-based, outcomes-based, and progress-based. Participation-based incentives are rewards for joining a program and are developed to gain attention for a program but may not get extended commitment. Outcomes-based incentives are awards for achieving a health goal and may or may not create a behavior change. Progress-based incentives reward participants for making progress toward a specific health goal (CDC, 2013b).

There are varying opinions when it comes to the use of incentives to promote wellness programs. Some believe that the use of incentives is ineffective, whereas others believe that incentives aid individuals in creating lifetime habits. There are many researchers who believe incentives do not work because people have to *want* to make the change themselves and should not rely on external rewards. Kohn (1993) believes that incentives are only temporary and that "once the rewards run out, people revert to their old behaviors" (p. 55).

When considering incentives, taking into account the types of jobs could also lead to greater employee participation in the exercise programs. For example, white collarworkers showed an interest in free items like food and gift certificates and a pointsreward system, "where employees who participate in health classes and practice healthy behaviors can accumulate points towards redeeming a prize, was also considered motivating (Leslie, 2013, p. 303). Blue-collar workers were interested in free fitness clothing, equipment, and gym memberships. White-collar workers wanted incentives for use during the workday, whereas blue-collar workers wanted prizes for use outside of the workplace (Leslie, 2013).

Mello and Rosenthal (2008) stated that "incentives can be framed as rewards or penalties and may take the form of prizes, cash, or the waiver of payment obligations" (p. 192). Mello and Rosenthal identified companies that rewarded or penalized based on health conditions. For example, they found that FedEx paid workers to participate in disease-management programs. Tannenbaum, Valasek, Knowles, & Ditto (2012) studied other cases of "stick" policies, or disincentives for unhealthy behaviors, such as deductions taken right out of an employee's paycheck for being overweight. This was the case with Clarian Health employees. Similarly, Western & Southern Financial issued health-care premium surcharges to their unhealthy employees. These instances demonstrated the shift from employer to employee responsibility and that employees are held accountable for their healthcare actions.

#### **Characteristics of Worksite Exercise Programs**

There have been many research findings indicating that worksite exercise programs have positive effects on employees' health-related behaviors and overall health risks. In their study, Mattke et al. (2013) found that "roughly half of wellness program participants reported positive changes in their walking activities and eating habits, and a quarter of participants reported getting closer to a healthy weight" (p. xvii). The American Heart Association (2007) conducted a study which found that employees reported feeling better, eating healthier, losing weight, exercising regularly, gaining more energy, having less stress, looking better, achieving lower cholesterol, lowering blood pressure, sleeping better, and quitting smoking. The participants reported "improved productivity, higher job satisfaction and lower absenteeism" (p. 5).

Lippincott et al. (2008) determined that those with sedentary jobs would greatly benefit from worksite exercise programs. As inactive lifestyles may lead to future cardiovascular disease, the researchers surveyed 72 laboratory and office workers and found that after only three months of following an exercise program, there was improvement in their blood pressure numbers, cholesterol, and body weight. The researchers used the National Heart, Lung, and Blood Institute's *Keep the Beat* program. Each participant received a binder which included 15-minute exercises (cardiovascular and strength-training) that could be performed at fitness centers and information about additional exercises that could be done during the day at the office (taking the stairs, area walking maps). The researchers found that only 15 to 20 minutes of exercise each day, performed at work, could reduce determinants which lead to cardiovascular disease. Engaging in exercise activities during the business day removed the time demands of both work and family obligations.

Worksite exercise programs can be as diverse as the companies that offer them. They do not need a lot of money in order to be effective. Successful programs have leadership backing, employee involvement in program planning, an understanding of employee interests, and a culture of health and wellness support (Johnson, 2011). For example, implementing a stair climbing campaign can lead to positive outcomes such as weight loss and increased cardiovascular capabilities. Meyer et al. (2010) conducted a study determining the effects of a worksite exercise program designed to promote stair usage rather than the elevator. During the intervention, participants increased their climbing from 4 flights per day to 21 flights. This amounted to an additional 10 minutes of exercise each day. Participants not only lost weight during this study period, but they also noticed improvement on both cholesterol and blood pressure levels.

#### **Participation Barriers of Worksite Exercise Programs**

Person, Colby, Bulova, & Eubanks (2010) found that insufficient incentives, inconvenient locations, time limitations, scheduling, marketing, and lack of interest were all barriers to participation in worksite health programs. However, program planning that addressed the identified barriers could facilitate higher participation in future worksite wellness opportunities.

The American Heart Association (2007) studied 2,885 working adults and found that 32% felt that their organization did not encourage participation in wellness programs. They also found that employees had many perceived apprehensions when it came to wellness programs: privacy concerns about employers having access to personal health information, lack of organizational support, time away from work, healthcare costs tied to participation, too complicated, and incentives not worthwhile (American Heart Association, 2007). "Active and ongoing leadership, encouragement and support are needed for employers to fully reap the benefits of worksite wellness programs" (American Heart Association, 2007, p. 12).

Bright and associates (2012) also determined that respondents reported there were barriers to participating in worksite wellness programs. The most common barriers were work schedule conflicts, a feeling of being too busy during the workday to take the time to participate, and a general lack of motivation.

# **Application of the Theory of Reasoned Action to Employees' Interests in Worksite Exercise Programs**

The Theory of Reasoned Action was developed by Fishbein and Ajzen "to better understand relationships between attitudes, intentions, and behaviors (Glanz, Rimer, & Viswanath, 2008, p. 68). The Theory of Reasoned Action is a tool used to comprehend the cognitive process which leads an employee to make a lifestyle change. This theory focuses "on theoretical constructs concerned with individual motivational factors as determinants of the likelihood of performing a specific behavior" (Glanz et al., 2008, p. 68).

"The Theory of Reasoned Action recognizes that personality and other sociocultural variables influence behavior" (Godin, 1993, p. 1392). In this thesis, the Theory of Reasoned Action can provide the framework for explaining employees' interests and preferences regarding worksite exercise programs. "Clearly, the more one knows about the factors that underlie the performance (or nonperformance) of any given behavior, the more likely it is that one can design a successful intervention to change or reinforce that behavior" (Fishbein, 2008, p. 834). Generally, this theory can prove to be very useful in understanding the decision-making process underlying exercise behavior.

## Summary

Research has shown that worksite exercise programs have an impact on creating and maintaining healthy habits for employees. Ongoing programs can create a healthier workforce by implementing strategies such as exercise programs. Mattke et al.'s (2013) study of four wellness programs, which all included exercise components, found positive effects on decreasing health risks among employees. Employees have expressed desires for worksite exercise programs but needs are different and programs should not be "onesize fits all". The prevalence of worksite exercise programs continues to grow, especially among companies with large numbers of employees. Incentives can increase program participation rates, but once again, all employees are different and favor diverse motivations. Engaging in exercise activities during the business day may remove time demands of work and family obligations. When barriers such as time constraints and lack of motivation are identified, then actions can be taken to remove them for a successful worksite exercise program. Finally, analyzing and applying the Theory of Reasoned Action could aid in the creation of successful worksite exercise programs by understanding the factors which lead employees to make lifestyle changes.

#### **Chapter III – Methodology**

## Introduction

The purpose of this study was to examine employees' interests and preferences regarding worksite exercise programs. A survey was used to gather data about employees' preferences. This chapter summarizes this study's research design and rationale for choice, participant selection, instrumentation, research procedures and methods, and data collection and analysis.

#### **Research Questions**

- 1. Among a sample of employees, what are reported physical activity levels?
- 2. Among a sample of employees, what are reported interest levels in worksite exercise programs?
- 3. In what types of worksite exercise programs would sampled employees likely participate?
- 4. What are sampled employees' preferences regarding incentives to participate in worksite exercise programs?

#### **Description of Research Design and Rationale for Choice**

This descriptive quantitative research study was created to ascertain sampled employees' interests and preferences for worksite exercise programs. This research data was collected from employees via an electronic survey in order to acquire answers to the research questions about worksite exercise programs. The worksite surveyed was a utility company that generates and sells wholesale electricity to its eighteen non-profit, municipally-owned member utilities throughout Minnesota. Their corporate office, based in Rochester, Minnesota, employs 44 full-time and 2 part-time staff positions.

This is a descriptive study because it did not include interventions as the study environment was not manipulated. This is quantitative study as a survey was used to collect data in order to analyze various types of worksite exercise programs and employees' preferences or interests in participating in those activities.

## **Participants**

Participants in this research study were both male and female employees. Participants were employed at the company during the first quarter of 2015. Participation in this research was voluntary and had no impact upon their job duties or insurance benefits. The researcher obtained permission from the company's human resource (HR) manager to survey the employees. The HR manager sent an email with a link to the survey to the company's 46 employees during the spring semester of 2015. No incentives for participation were offered. The human resources manager approved of the research and encouraged employees to participate through email reminders.

#### **Data Collection Instrumentation**

The survey used in this research study was an electronically written questionnaire. Questions one through three introduced a variety of exercise interventions and incentive options in order to identify employee interest and preferences regarding worksite exercise programs. The Likert rating scale was used to collect response rates. Responses were categorized from uninterested to very interested in company involvement in exercise activities, very unlikely to very likely in personal participation in exercise activities, and strongly disagree to strongly agree for whether various incentives would motivate participants to participate in exercise programs. General health and basic demographic information was asked of each participant including feelings regarding personal health, age, gender, and income.

The survey questions were developed by the researcher who sought feedback from five individuals in academia and the HR manager. They reviewed the survey instrument regarding its content validity.

An email was sent to employees that included an informed consent form, instructions for the completion of the survey, and the actual link to the survey. See Appendix A for a copy of the email sent to the employees, Appendix B for a copy of the consent form and Appendix C for a copy of the survey instrument.

# **Data Collection Procedures**

Approval for the data collection was obtained from the Minnesota State Institutional Review Board (Appendix D). The survey was created and distributed using the online survey creation site Qualtrics. Data collection was conducted from February 24, 2015 through March 13, 2015. An email, with a link to the survey, was sent to all employees by the HR manager requesting participation in the survey. Surveys were sent directly to company employees using their work emails. Consent forms containing information on the purpose of the study, potential risks to the participants and participant rights were attached to the initial survey email. These consent forms identified who had access to data collected in order to protect participant privacy and participants were instructed to retain the document. The HR manager sent a reminder email, with a link to the survey, to employees one week after the initial survey was distributed to encourage response.

A pilot study was not practical in this particular study, but a preliminary review of the survey by health and business professionals (n = 5) was conducted to assess the quality of the data collection instrument. The survey was printed and took about 5 minutes to be completed. Researchers had the opportunity to indicate whether each survey question was "Essential", "Useful, but not essential", or "Not necessary". In addition, there was space for participants to leave comments about each question. There were suggestions for the addition of an "Other" option for respondents to fill in their own options in questions. The majority of the responses indicated most questions were "Essential". Minor revisions were made to the survey in order to better answer the research questions and to increase understanding of each question.

#### **Data Analysis**

The data for this study was collected from February 24, 2015 to March 13, 2015. Once all surveys were completed, the data was analyzed using descriptive statistics

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(frequency counts, percentages, means, and standard deviations) using the Statistical Package for Social Sciences (SPSS) software program.

# Summary

This chapter described the methodology used in this descriptive quantitative research study that assessed sampled employees regarding interest in and preferences about worksite exercise programs. An electronic survey was created and emailed to employees at a Rochester, Minnesota-based company. The employees had a two-week timeframe to complete the survey during the spring of 2015. The findings were analyzed using the SPSS software program and observed frequency counts, percentages, means, and standard deviation.
## **Chapter IV – Findings and Discussion**

#### Introduction

The purpose of this research was to assess employees' interests and preferences regarding worksite exercise programs. In order to collect data, a 12 item survey was developed and administered to employees at a Rochester, MN company. The findings from the quantitative analysis for each research question are presented in this chapter.

After IRB approval was attained, emails with links to the electronic survey were distributed to 46 employees by the company's HR manager. Of the 46 surveys electronically sent, the response rate was 45.7% (n = 21). Responses from the 21 participants were coded and entered into a database using SPSS. Descriptive statistical analyses were used to answer the presented research questions.

# **Participants' Demographics**

Demographic data collected from participants included gender, age, time employed at the company, individual income, and total household income. Of those who answered the survey, 66.7% were male (n = 14) and 28.6% were female (n = 6). The mean age of the participants surveyed was 51 years, with a range of 31-62 years. Seventeen years was the mean length of employment at the surveyed company. Length of employment ranged from 5 weeks to 33 years. The individual incomes ranged from \$60,000 per year to \$201,000 per year with a mean of \$133,000 per year. The total household incomes ranged from \$70,000 per year to \$315,000 per year with a mean of \$172,200 per year.

# **Research Question 1: Among a sample of employees, what are reported physical activity levels?**

In order to identify employee health levels, survey questions four through six asked participants about their general health status, how often they exercised each week, and if they felt they got enough exercise. Question 4 of the survey asked participants to choose if their general health was excellent, very good, good, fair, or poor. Of the participants, 28.6% (n = 6) rated their general health as excellent, 33.3% (n = 7) rated their general health as very good, and 38.1% (n = 8) rated their general health as good. Nobody answered fair or poor. Question 5 of the survey asked participants how often they exercised each week (a minimum of 30 minutes per session). Results showed 4.8% (n = 1) do not exercise, 33.3% (n = 7) exercise 1-2 times each week, 47.6% (n = 10)exercise 3-5 times each week, 9.5% (n = 2) exercise 6-7 times each week, and 4.8% (n =1) exercise 8 or more times each week. Question 6 of the survey asked participants if they felt they got enough physical exercise. Forty-seven point six percent (n = 10) of participants answered that they felt they got enough exercise and 52.4% (n = 11) felt they did not get enough exercise. The exercise level and overall health questions reported by the participants are detailed in Table 4.1.

## Summary of Reported Levels of Health and Exercise

Variable	Frequency	Percent	
	( <i>n</i> )	(%)	
General health			
Excellent	6	28.6	
Very Good	7	33.3	
Good	8	38.1	
Days/week employees exe	ercise		
0	1	4.8	
1-2	7	33.3	
3-5	10	47.6	
6-7	2	9.5	
8+	1	4.8	
Do employees feel they go	et enough exercise?		
Yes	10	47.6	
No	11	52.4	

# **Research Question 2: Among a sample of employees, what are reported interest levels in worksite exercise programs?**

In order to identify participants' interest levels in specific exercise programs, participants were asked to select, using a Likert rating scale, which exercise programs, if offered by their employer, would interest them. The participants were asked to pick one statement for each of the 17 exercise program options listed. There was also a space marked *other* for the participants to write in their own responses. The statements ranged from uninterested to very interested. The exercise programs with the most interest were

bicycling (n = 12) and personal training (n = 11). Hiking and walking programs came in third with 10 participants citing interest in each activity. The exercise programs with the least interest were in-line skating (n = 18) and basketball (n = 15). Swimming came in third place (n = 13). There were no write-in responses in the *other* category. The interests in exercise programs reported by the participants are detailed in Table 4.2.

# Table 4.2

Variable	Frequency	Percent	
, anabie	( <i>n</i> )	(%)	
Bicycling			
Uninterested	4	19.0	
Somewhat to Very Interested	15	71.4	
Walking Program			
Uninterested	4	19.0	
Somewhat to Very Interested	15	71.4	
Hiking			
Uninterested	7	33.3	
Somewhat to Very Interested	13	61.9	
Personal Trainer			
Uninterested	6	28.6	
Somewhat to Very Interested	11	52.4	
Strength Training			
Uninterested	6	28.6	
Somewhat to Very Interested	11	52.4	

# Summary of Reported Exercise Program Interest

# Summary of Reported Exercise Program Interest

Variable	Frequency ( <i>n</i> )	Percent (%)
Stretching (Yoga, Pilates)		
Uninterested	9	42.9
Somewhat to Very Interested	11	52.4
Family-Oriented Fitness Event		
Uninterested	5	23.8
Somewhat to Very Interested	10	47.6
Fitness Coaching		
Uninterested	6	28.6
Somewhat to Very Interested	10	47.6
Aerobics		
Uninterested	9	42.9
Somewhat to Very Interested	7	33.3
Running		
Uninterested	11	52.4
Somewhat to Very Interested	7	33.3
Vollevball		
Uninterested	12	57.1
Somewhat to Very Interested	6	28.6
Zumba/Dance Class		
Uninterested	10	47.6
Somewhat to Very Interested	6	28.6
Fitness Competition Event		
Uninterested	12	57.1
Somewhat to Very Interested	5	23.8

# Summary of Reported Exercise Program Interest

Variable	Frequency ( <i>n</i> )	Percent (%)
Baseball/Softball		
Uninterested	12	57.1
Somewhat to Very Interested	4	19.0
Basketball		
Uninterested	15	71.4
Somewhat to Very Interested	3	14.3
Swimming		
Uninterested	13	61.0
Comparished to Marry Interested	15	01.9
Somewhat to very interested	2	9.5
In-Line Skating		
Uninterested	18	85.7
Somewhat to Very Interested	1	4.8
	-	

# **Research Question 3: In what types of worksite exercise programs would sampled employees likely participate?**

In order to identify participants' preferences in participating in specific exercise programs, participants were asked to select, using a Likert rating scale, how likely they would be to participate in specific worksite exercise programs. Participants were asked to choose one statement for each of the 17 exercise program options listed. Plus, there was a space marked *other* for the participant to write in a response. The statements

ranged from very unlikely to very likely. Participants stated that they were likely or very likely to participate in walking (n = 11) and stretching (n = 11) programs. Hiking (n = 10), fitness coaching (n = 10), and personal training (n = 10) were the second most frequently selected options. Participants stated that they were unlikely or very unlikely to participate in in-line skating (n = 18) or swimming (n = 16). Group sports like volleyball, basketball, baseball/softball, and fitness competition event all came in third place (n = 11). There were no write-in responses in the *other* category. See table 4.3.

# Table 4.3

Variable	Frequency	Percent	
	<i>(n)</i>	(%)	
Stretching (Yoga, Pilates)			
Unlikely to Very Unlikely	8	38.1	
Likely to Very Likely	11	52.4	
Walking Program			
Unlikely to Very Unlikely	4	19.0	
Likely to Very Likely	11	52.4	
Fitness Coaching			
Unlikely to Very Unlikely	6	28.6	
Likely to Very Likely	10	47.6	
Hiking			
Unlikely to Very Unlikely	9	42.9	
Likely to Very Likely	10	47.6	

Summary of Reported Likelihood in Exercise Program Participation

Summary of Reported Likelihood in Exercise Program Participation

Variable	Frequency ( <i>n</i> )	Percent (%)	
Personal Trainer			
Unlikely to Very Unlikely	6	28.6	
Likely to Very Likely	10	47.6	
Strength Training			
Unlikely to Very Unlikely	8	38.1	
Likely to Very Likely	9	42.9	
Bicycling			
Unlikely to Very Unlikely	6	28.6	
Likely to Very Likely	8	38.1	
Family-Oriented Fitness Event			
Unlikely to Very Unlikely	7	33.3	
Likely to Very Likely	8	38.1	
Fitness Competition Event			
Unlikely to Very Unlikely	12	57.1	
Likely to Very Likely	5	23.8	
Aerobics			
Unlikely to Very Unlikely	12	57.1	
Likely to Very Likely	4	19.0	
Vollevball			
Unlikely to Very Unlikely	12	57.1	
Likely to Very Likely	4	19.0	
Zumba/Dance Class			
Unlikely to Very Unlikely	13	61.9	
Likely to Very Likely	4	19.0	

Summary of Reported Likelihood in Exercise Program Participation

Variable	Frequency ( <i>n</i> )	Percent (%)
Baseball/Softball Unlikely to Very Unlikely Likely to Very Likely	14	66.6 14 3
Basketball Unlikely to Very Unlikely Likely to Very Likely	14 2	66.6 9.5
Running Unlikely to Very Unlikely Likely to Very Likely	14 2	66.6 9.5
Swimming Unlikely to Very Unlikely Likely to Very Likely	16 2	76.2 9.5
In-Line Skating Unlikely to Very Unlikely Likely to Very Likely	18 1	85.7 4.8

# **Research Question 4: What are sampled employees' preferences regarding incentives to participate in worksite exercise programs?**

Participants were asked to select, using a Likert rating scale, which incentives would motivate them to participate in worksite exercise programs. Participants were instructed to choose one statement for each of the 15 incentive options listed, with an

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option of *other* for the participants to write in their own responses. The statements ranged from strongly disagree to strongly agree. Participants stated that they agreed or strongly agreed that gift cards (n = 17), extra days off (n = 17), and cash (n = 16), would motivate them to participate in worksite exercise programs. The least favorable incentives, which were answered with disagree or strongly disagree were company recognition (n = 13), plaques and ribbons given at an awards ceremony (n = 15), and a reserved parking space (n = 15). There was one write-in incentive for a Fitbit, which is a form of pedometer. See table 4.4.

Table 4.4

## Summary of Reported Motivational Incentives

Variable	Frequency	Percent
	( <i>n</i> )	(%)
Days Off		
Disagree to Strongly Disagree	1	4.8
Agree to Strongly Agree	17	81.0
Gift Cards		
Disagree to Strongly Disagree	0	0.0
Agree to Strongly Agree	17	81.0
Cash		
Disagree to Strongly Disagree	1	4.8
Agree to Strongly Agree	14	66.6
Free Lunch		
Disagree to Strongly Disagree	1	4.8
Agree to Strongly Agree	14	66.6

# Summary of Reported Motivational Incentives

Variable	Frequency	Percent	
	<i>(n)</i>	(%)	
Massage			
Disagree to Strongly Disagree Agree to Strongly Agree	4 14	19.0 66.6	
Prize Drawings			
Disagree to Strongly Disagree Agree to Strongly Agree	3 13	14.3 61.9	
Free/Low Cost Onsite Screenings			
Disagree to Strongly Disagree Agree to Strongly Agree	7 11	33.3 52.4	
Workout Equipment			
Disagree to Strongly Disagree Agree to Strongly Agree	3 11	14.3 52.4	
Party with Health Snacks			
Disagree to Strongly Disagree Agree to Strongly Agree	2 10	9.5 47.6	
Small Prizes			
Disagree to Strongly Disagree	6	28.6	
Agree to Strongly Agree	10	47.6	
Pedometer			
Disagree to Strongly Disagree Agree to Strongly Agree	4 7	19.0 33.3	
Health Magazine Subscription			
Disagree to Strongly Disagree	9	42.9	
Agree to Strongly Agree	6	28.6	

# Summary of Reported Motivational Incentives

Variable	Frequency ( <i>n</i> )	Percent (%)
Company Recognition		
Disagree to Strongly Disagree	13	61.9
Agree to Strongly Agree	3	14.3
Plaque, Ribbon, Certificate		
Disagree to Strongly Disagree	15	71.4
Agree to Strongly Agree	2	9.5
Reserved Parking Space		
Disagree to Strongly Disagree	14	66.6
Agree to Strongly Agree	2	9.5

# Summary

The focus of this study was to identify employees' interests in worksite exercise programs. Secondly, it considered numerous types of incentives and whether they would motivate employees to participate in worksite exercise programs. Finally, it identified employees' current exercise levels and views of personal health. Twenty-one employees from a Rochester, MN company participated in this study.

Each participant in the study showed some sort of interest in worksite wellness exercise programs and a willingness to participate in various exercise activities. There were definitely opinions as to which types of exercise programs participants would likely participate in versus those that showed no likelihood, such as in-line skating where 85.8% (n = 18) answered that it would be unlikely or very unlikely.

Data collected in this thesis also showed that incentives would motivate participants to participate in worksite exercise programs. Incentives that offered prizes, cash, and food ranked high whereas incentives offering recognition scored quite low. For instance; a plaque, ribbon, or achievement certificate given at an awards ceremony and a reserved parking space came in with low numbers. For these incentives, 71.4% (n = 15) of participants stated that they disagreed or strongly disagreed that these would motivate participants to exercise.

One hundred percent (n = 21) of the participants felt that their current health was good or better and 61.9% (n = 13) exercise (a minimum of 30 minutes per session) three or more times each week. It was almost evenly split as to whether the participants felt that they get enough physical exercise each week. Forty-seven point six (n = 10) felt they do get enough exercise and 52.4% (n = 11) felt that they do not get enough physical exercise. Overall, participants showed an interest in worksite exercise programs and felt that certain incentives would motivate them to participate.

# **Chapter V – Summary, Conclusions, and Recommendations**

# Introduction

The main purpose of this study was to assess employees' interests and preferences regarding worksite exercise programs. The following research questions were investigated in this study:

- 1. Among a sample of employees, what are reported physical activity levels?
- 2. Among a sample of employees, what are reported interest levels in worksite exercise programs?
- 3. In what types of worksite exercise programs would sampled employees likely participate?
- 4. What are sampled employees' preferences regarding incentives to participate in worksite exercise programs?

# Summary

In order to alleviate the problem of an unhealthy workforce, employers often implement disease prevention and health promotion strategies, referred to as worksite wellness programs. According to a 2012 survey by the Kaiser Family Foundation (KFF) and the Health Research & Educational Trust, two thirds of companies that have three or more employees and provide health benefits offer at least one wellness program (KFF, 2012). There have been many research findings indicating that worksite exercise programs have positive effects on employees' health-related behaviors and overall health risks.

This study surveyed a sample of 21 participants who worked at a Rochester, MN based company. In order for participants to qualify for this study, they had to have been employed at the company during the first quarter of 2015.

The data collection instrument that was used in this study was an electronic survey and participation was voluntary. The electronic survey included 12 questions for participants to complete. The questions included in the survey were structured to collect data about the demographic characteristics of the participants, their physical activity levels, interests and preferences regarding worksite exercise programs, and incentives that may motivate them to participate in worksite exercise programs.

## Conclusions

This research provided findings about sampled employees' interests and preferences regarding worksite exercise programs. Worksite exercise programs have become increasingly popular due to the fact that physical fitness may aid in decreasing lost productivity at work. Lost productivity can many times be attributed to poor health. A Duke University study published in 2013 found that health care costs climb with each number increase over 19 in people's body mass index (BMI). The researchers suggested that wellness programs which encourage people to lose weight could save employers money (Ostbye et al., 2013). Interestingly, although 100% of participants rated their health good, very good, or excellent, 38.1% reported exercising less than 2 times each week. Not one participant rated their health as fair or poor. Since this survey was a self-reported, participants may have rated themselves healthier than they truly were. Only one participant noted no exercise participation each week whereas the majority, 61.9% (n = 13), exercised three or more times each week. Forty-seven point six percent (n = 10) felt that they did not get enough exercise each week. This is where there is room for improvement. Worksite exercise programs may create an extra push for weekly physical activity.

As white-collar workers typically have more sedentary jobs than their counterparts, there was greater interest in worksite exercise programs. White-collar workers voiced interest in access to fitness opportunities, such as having the ability to use the office stairs and availability to attend fitness classes like aerobics and yoga (Leslie et al., 2013). The participants in this study would be classified as white collar and every single one of the participants selected at least one activity they would participate in. This coincides with similar research showing interest in worksite exercise activities.

A study at Ohio Northern University found that nearly 90% of respondents indicated a desire to participate in exercise programs such as walking clubs, yoga, weight training, and dance classes (Bright et al., 2012). This study had similar findings. There was strong likelihood for participation in such activities as walking, stretching, and hiking.

Both question one and two of the survey, looking at exercise preference and interest, had a large number of participants interested in personal training and lack of

interest in in-line skating. Participants indicated that there would not be likelihood in swimming participation rates. These survey answers demonstrate the necessity to communicate with employees about exercise programs before implementation. For example, if this company went ahead and created a swimming program at a local pool, they would be upset with participation rates since this survey showed a lack of interest in such a program. On the other hand, if the company looked at the study data, it would be determined that hiking and bicycling programs would have high participation rates and it would make sense to create such programs.

"Incentives can help lead to a change or maintain a change in the current state of workplace health, help gain/retain participation in a program, and support healthier behaviors" (CDC, 2013b, p. 16). There are varying opinions when it comes to the use of incentives to promote wellness programs. Some believe that the use of incentives is ineffective, whereas others believe that incentives aid individuals in creating lifetime habits. Question three of this study asked participants to indicate which incentives would motivate them to participate in worksite exercise programs. The top answers were gift cards, cash, and extra days off. Options with any sort of recognition were not chosen which implies a lack of interest in those sorts of incentives. Research has shown that white collar-workers revealed an interest in free items like food and gift certificates (Leslie, 2013). This coincides with the findings of this study. Once again, discussing incentives with employees would be beneficial when creating worksite exercise programs. After reviewing the study survey, findings determined that an award ceremony would be little valued and would detract employees from participating in exercise programs. But if the prize were a gift card to a local food coop, then participant turnout may be quite high. It is all about including employees in the creation of programs and asking them what their wants and needs entail.

Person et al. (2010) found that insufficient incentives, inconvenient locations, time limitations, scheduling, marketing, and lack of interest were all barriers to participation in health programs. However, program planning that addressed the identified barriers could facilitate higher participation in future worksite wellness opportunities.

#### **Limitations and Delimitations**

There were some limiting factors in this research. The first limitation was that this was a convenience sample as the study participants were employed at one company. The second limitation of the study was that the sample size is small so findings will not be representative of the entire population. Third, since the survey was a self-analysis, answers are only as accurate as the participants' opinions. Finally, the survey was only available for two weeks so time was a limitation.

# **Recommendations for Health Education**

The fact that 100% (n = 21) of participants in this study found at least one exercise program of interest, demonstrates the importance in including employees in the creation of worksite exercise programs. Plus, 100% (n = 21), of participants selected at least one incentive that would motivate them to participate in the worksite exercise programs. My recommendation is to educate human resource professionals, employers, healthcare workers, and anyone else in the worksite wellness field of the significance of employee involvement in program creation. It would be ideal if every person had input into what he or she needs in terms of exercise and healthy living needs.

Now that worksite exercise programs are increasingly common, the inclusion of potential participants in their creation could increase participation rates and successful changes in employee health and decrease costs and absenteeism rates.

## **Recommendations for Further Study**

Based on the findings of this research, there is a need to collect data from employees at other companies. Also expanding the geographical location of participants throughout the nation could provide a more comprehensive understanding of employees' interests and preferences regarding worksite exercise programs. Having a larger sample size may have enhanced the validity of the findings. Because of the lack of diversity, age groups, and lower income levels (white collar vs. blue collar), findings regarding interests and preferences for worksite exercise programs may have been limited.

#### References

- American Heart Association. (2007). *Worksite wellness*. Retrieved from http://www.startwalkingnow.org/documents/WorksiteWellnessWhitePaper-Harris07.pdf
- Aronsson, G., Gustafsson, K., & Dallner, M. (2000). Sick but yet at work. An empirical study of sickness presenteeism. *Journal of Epidemiol Community Health*, 54, 502-509. Retrieved from

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1731716/pdf/v054p00502.pdf

- Baicker, K., Cutler, D., & Song, Z. (2010). Workplace wellness programs can generate savings. *Health Affairs*, 29(2), 304-311. doi:10.1377/hlthaff.2009.0626
- Bright, D., Terrell, S., Rush, M., Kroustos, K., Stockert, A., Swanson, S., & DiPietro, N. (2012). Employee attitudes toward participation in a work site-based health and wellness clinic. *Journal of Pharmacy Practice*, *25*, 530-536. doi:10.1177/0897190012442719
- Caspersen, C., Powell, K., & Christenson, G. (1985). Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. *Public Health Reports, 100*(2), 126-131. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1424733/pdf/pubhealthrep00100-0016.pdf

Centers for Disease Control and Prevention (CDC). (2010). Health risk appraisals.

Retrieved from

http://www.cdc.gov/nccdphp/dnpao/hwi/programdesign/health\_risk\_appraisals.ht

Centers for Disease Control and Prevention (CDC). (2013a, August). *National Healthy Worksite Program.* Retrieved from

http://www.cdc.gov/nationalhealthyworksite/about/index.html

Centers for Disease Control and Prevention (CDC). (2013b). Workplace health incentives. Retrieved from

http://www.cdc.gov/nationalhealthyworksite/docs/nhwp\_workplace\_health\_incent ives\_final\_tag508.pdf

- Fishbein, M. (2008). A reasoned action approach to health promotion. *Medical Decision Making*, 28(6), 834-844. doi:10.1177/0272989X08326092
- Gazmararian, J., Elon, L., Newsome, K., Schild, L., & Jacobson, K. (2013). A randomized prospective trial of a worksite intervention program to increase physical activity. *American Journal of Health Promotion*, 28(1), 32-40.
- Glanz, K., Rimer, B., & Viswanath, K. (2008). Health behavior and health education: Theory, research, and practice. San Francisco, CA: Jossey-Bass.
- Godin, G. (1993). Theories of reasoned action and planned behavior: Usefulness for exercise promotion. *Medicine and Science in Sports and Exercise*, 26(11), 1391-1394.

- Heathfield, S. (2014). *What are incentives at work? About money*. Retrieved from http://humanresources.about.com/od/employeerecognition/g/what-are-incentivesat-work.htm
- Hemp, P. (2004). Presenteeism: At work but often out of it. *Harvard Business Review*, 82(10), 49-58. Retrieved from https://hbr.org/2004/10/presenteeism-at-work-butout-of-it
- Johnson, T. (2011). Catching the worksite wellness wave. *New Hampshire Business Review 33*(11). Retrieved from

http://search.proquest.com.ezproxy.mnsu.edu/docview/877867296?pqorigsite=summon

Kaiser Family Foundation (KFF) & Health Research and Educational Trust. (2005). *Employer health benefits 2013 annual survey*. Retrieved from http://kff.org/private-insurance/report/2013-employer-health-benefits/

 Kaiser Family Foundation (KFF) & Health Research and Educational Trust. (2012).
 *Employer health benefits 2012 annual survey*. Retrieved from https://kaiserfamilyfoundation.files.wordpress.com/2013/03/8345-employerhealth-benefits-annual-survey-full-report-0912.pdf

Kaiser Family Foundation (KFF) & Health Research and Educational Trust. (2014). *Employer health benefits 2014 annual survey*. Retrieved from http://kff.org/health-costs/report/2014-employer-health-benefits-survey/

- Kohn, A. (1993). Why incentive plans cannot work. *Harvard Business Review*, 71(5), 54-71.
- Leslie, J., Braun, K., Novotny, R., & Mokuau, N. (2013). Factors affecting healthy eating and physical activity behaviors among multiethnic blue- and white-collar workers: A case study of one healthcare institution. *Hawai'i Jouranl of Medicine & Public Health*, 72(9), 300-306.
- Lippincott, M., Desai, A., Zalos, G., Carlow, A., De Jesus, J., Blum, A., Smith, K.,
  Rodrigo, M., Patibandla, S., Chaudrhy, H., Glaser A., Schenke, W., Csako, G.,
  Waclawiw, M., & Cannon, R. (2008). Predictors of endothelial function in
  employees with sedentary occupations in a worksite exercise program. *American Journal of Cardiology*, *102*(7), 820-824. doi: 10.1016/j.amjcard.2008.05.020
- Linnan, L., Weiner, B., Graham, A., & Emmons, K. (2007). Manager beliefs regarding worksite health promotion: Findings from the working healthy project 2. *American Journal of Health Promotion, 21*, 521-528. Retrieved from http://web.a.ebscohost.com.ezproxy.mnsu.edu/ehost/pdfviewer/pdfviewer?sid=a4 52cc0c-cff9-42c1-9c48-925a223ed7e6%40sessionmgr4005&vid=1&hid=4109
- Linnan, L., Bowling, M., Childress, J., Lindsay, G., & Blakey, C. (2008). Results of the 2004 National Worksite Health Promotion Survey. *American Journal of Public Health*, 98(8), 1503-1509. Retrieved from http://dx.doi.org/10.2105/ajph.2006.100313

Mattke, S., Liu, H., Caloyeras, J., Huang, C., Van Busum, K., Khodyakov, D., & Shier,
 V. (2013). Workplace wellness programs study. Retrieved from Department of
 Labor website: http://www.dol.gov/ebsa/pdf/ workplacewellnessstudyfinal.pdf

Mello, M., & Rosenthal, M. (2008). Wellness programs and lifestyle discrimination – the legal limits. *The New England Journal of Medicine*, 359, 192-199. doi: 10.1056/NEJMhle0801929

Meyer, P., Kayser, B., Kossovsky, M., Sigaud, P., Carballo, D., Keller, P., Martin, X.,
Farpour-Lambert, N., Pichard, C., & Mach, F. (2010). Stairs instead of elevators at workplace: Cardioprotective effects of a pragmatic intervention. *European Journal of Cardiovascular Prevention and Rehabilitation 17*(5), 1-7. doi: 10.1097/HJR.0b013e328338a4dd

Middaugh, D. (2007). Presenteeism: Sick and tired at work. *Dermatology Nursing*, 19(2), 172-185. Retrieved from http://search.proquest.com.ezproxy.mnsu.edu/docview/224817303?pq-

origsite=summon

Mitchell, M., Goodman, J., Alter, D., John, L., Oh, P., Pakosh, M., & Faulkner, G.
(2013). Financial incentives for exercise adherence in adults: Systematic review and meta-analysis. *American Journal of Preventative Medicine*, 45, 658-667. doi: 10.1016/j.amepre.2013.06.017

- Ostbye, T., Stroo, M., Brouwer, R., Peterson, B., Eisenstein, E., Fuemmeler, B., Joyner, J., Gulley, L., & Dement, J. (2013). The steps to health employee weight management randomized control trial: Rationale, design and baseline characteristics. *Contemporary Clinical Trials, 35*, 68-76. Retrieved from http://communityhealth.mc.duke.edu/sites/communityhealth.mc.duke.edu/files/Th e%20Steps%20to%20Health%20Employee%20Weight%20Management%20Ran domized%20Control%20Trial%20Rationale%20Design%20and%20Baseline%20 Characteristics.pdf
- Person, A., Colby, S., Bulova, J., & Eubanks, J. (2010). Barriers to participation in a worksite wellness program. *Nutritional Research and Practice*, 4(2), 149-154. doi:10.4162/nrp.2010.4.2.149
- Pronk, N., Martinson, B., Kessler, R., Beck, A., Simon, G., & Wang, P. (2004). The association between work performance and physical activity, cardiorespiratory fitness, and obesity. *Journal of Occupational & Environmental Medicine*, 46(1), 19-25. Retrieved from http://journals.lww.com/joem/Abstract/2004/01000/The\_Association\_Between\_Work\_Performance\_and.5.aspx

RAND Health. (2013). Workplace wellness programs study: Case studies summary report. Retrieved from

http://www.dol.gov/ebsa/pdf/workplacewellnessstudysummary.pdf

- Tannenbaum, D., Valasek, C., Knowles, E., & Ditto, P. (2012). Incentivizing wellness in the workplace: Sticks (not carrots) send stigmatizing signals. *Psychological Science 24*(8), 1512-1522. doi: 10.1177/0956797612474471
- Taylor, P., Pocock, S., & Sergean, R. (1972). Absenteeism of shift and day workers. British Journal of Medicine 29(2), 208-213. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1009401/?page=1
- Towers Watson. (2013). *The business value of a healthy workforce United States:* 2013/2014 staying @ work survey report. Retrieved from http://www.towerswatson.com/en-US/Insights/IC-Types/Survey-Research-Results/2013/12/stayingatwork-survey-report-2013-2014-us
- University of Iowa. (2014). Organizational effectiveness 2014 annual report. Retrieved from http://hr.uiowa.edu/files/hr.uiowa.edu/files/Annual\_report\_2014.pdf
- Warburton, D., Nicol, C., & Bredin, S. (2006). Health benefits of physical activity: The evidence. CMAJ – JAMC, 174(6), 801-809. Doi: 10.1503/cmaj.051351
- Witters, D., & Agrawal, S. (2011, October). Unhealthy U.S. workers' absenteeism costs 153 billion. *Gallup*. Retrieved from www.gallup.com/poll/150026/unhealthyworkers-absenteeism-costs-153-billion.aspx

Appendix A

Survey Email

From: Feehan, Sandra K. Sent: Tuesday, February 24, 2015 2:04 PM To: \_DL SMP Staff Subject: Health & Wellness Survey

SMMPA Team,

Recently Amber Butcher, Keith's wife, approached us to see if she could survey the team to complete her Master's thesis. Her thesis topic is "Employees' Interests and Preferences Regarding Worksite Exercise Programs". Your health/wellness and following a healthy lifestyle are important to us, so we thought this would be a great opportunity to get your thoughts about our health and wellness programs/activities and help Amber with her thesis research at the same time. We hope you can find time to complete the short survey by March 13<sup>th</sup>. Below is a letter from Amber and a link to the survey.

Please let me know if you have any questions.

Sandy

My name is Amber Butcher and I am currently conducting a study to assess **employees' interests and preferences regarding worksite exercise programs**. I am a graduate student at Minnesota State University, Mankato in the Department of Health Science.

The purpose of this study is to:

- 1. assess the interests and preferences of worksite exercise programs among a sample of employees, and
- 2. determine if incentives will increase participation in worksite exercise programs.

Your participation in this study is completely **voluntary**. You may refuse to participate with no penalty. In addition, you may discontinue participation or decline to answer any question(s) at any time. The surveys are completely **confidential** and should take only about 5 minutes to complete. Your participation is greatly appreciated.

Please note: details regarding **Informed Consent** are attached and on the first page of the survey. To complete the survey, click on this link <u>https://qtrial2015az1.az1.qualtrics.com/SE/?SID=SV\_e3r8Hw0jmmgv4wJ</u>.

Thank you for your consideration and time.

Sincerely,

Amber K. Butcher

Amber K. Butcher Minnesota State University, Mankato, MN 213 Highland Center North Mankato, MN 56001 Email: <u>amber.butcher@mnsu.edu</u>

Dr. Amy Hedman Minnesota State University Mankato 213 Highland North Mankato, MN 56001 amy.hedman@mnsu Appendix B

**Informed Consent** 

#### **ONLINE/ANONYMOUS SURVEY CONSENT**

You are requested to participate in research supervised by Dr. Amy Hedman on employees' interests and preferences regarding worksite exercise programs. This survey should take about 5 minutes to complete. The goal of this survey is to understand what employees think about worksite exercise programs, and you will be asked to answer questions about that topic. If you have any questions about the research, please contact Dr. Hedman at amy.hedman@mnsu.edu.

Participation is voluntary. You have the option not to respond to any of the questions. You may stop taking the survey at any time by closing your web browser. Participation or nonparticipation will not impact your relationship with Minnesota State University, Mankato or your employer. If you have questions about the treatment of human participants and Minnesota State University, Mankato, contact the IRB Administrator, Dr. Barry Ries, at 507-389-1242 or barry.ries@mnsu.edu.

Responses will be anonymous. However, whenever one works with online technology there is always the risk of compromising privacy, confidentiality, and/or anonymity. If you would like more information about the specific privacy and anonymity risks posed by online surveys, please contact the Minnesota State University, Mankato Information and Technology Services Help Desk (507-389-6654) and ask to speak to the Information Security Manager.

The risks of participating are no more than are experienced in daily life.

There are no direct benefits for participating. Society might benefit by the increased understanding of interests and preferences regarding worksite exercise programs.

Submitting the completed survey will indicate your informed consent to participate and indicate your assurance that you are at least 18 years of age.

Please print a copy of this page for your future reference.

# **MSU IRBNet ID#** 699112

# Date of MSU IRB approval: 02/16/2015

Appendix C

Survey Instrument

# Worksite Exercise Survey

The following questions assess your interests and preferences regarding worksite exercise programs. These questions encompass physical activities that you do while at work or are employer-sponsored. Please answer each question honestly and to the best of your knowledge as it applies to you. Thank you for taking the time to complete this survey. All responses will be kept confidential and the completion of this survey implies informed consent.

# Q1 Please indicate how interested you would be if your company offered the following worksite (employer-sponsored) exercise programs.

	Uninterested	Somewhat Interested	Neither Interested nor Uninterested	Interested	Very Interested
Walking	0	0	0	0	0
Program		-		J. J	
Stretching (Yoga, Pilates)	0	0	0	0	О
In-Line Skating	О	О	О	О	О
Running	О	0	О	0	О
Bicycling	О	О	О	О	О
Volleyball	0	0	0	Ο	O
Hiking	О	Ο	0	Ο	О
Basketball	0	0	0	0	О
Strength Training	0	0	0	0	0
Aerobics	О	О	О	О	О
Swimming	0	0	0	0	О
Fitness Coaching	0	0	0	0	0

Personal Trainer	О	О	0	0	O
Fitness Competition Event	0	О	О	О	О
Family-Oriented Fitness Event	0	0	0	0	О
Zumba/Dance Class	0	0	0	0	0
Baseball/Softball	О	О	О	О	О
Other	О	О	0	0	0
Q2 Please indicate how likely you would be to participate in the following worksite exercise programs.

	Very Unlikely	Unlikely	Undecided	Likely	Very Likely
Walking Program	0	0	0	0	0
Stretching (Yoga, Pilates)	0	0	0	0	0
In-Line Skating	О	О	О	О	О
Running	О	О	О	О	О
Bicycling	О	О	О	О	О
Volleyball	О	Ο	О	О	О
Hiking	О	О	О	О	О
Basketball	О	О	О	О	О
Strength Training	0	0	0	0	0
Aerobics	О	О	О	О	О
Swimming	0	0	О	0	О
Fitness Coaching	0	0	0	0	0
Personal Trainer	О	О	О	О	О

Fitness Competition Event	0	0	0	0	0
Family-Oriented Fitness Event	О	О	Ο	О	О
Zumba/Dance Class	О	0	0	О	О
Baseball/Softball	0	Ο	Ο	0	О
Other	0	0	0	0	0

Q3 Please read the incentives listed below and indicate which would motivate you to participate in worksite exercise programs.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Recognition in company's newsletter/bulletin board.	0	0	0	0	0
Plaque, ribbon or achievement certificates given at an awards ceremony	0	0	O	•	0
Party for participants with healthy snacks	0	0	0	0	0
Small prizes like: water bottles, drink insulators, t- shirts, baseball caps, or sweatshirts	0	O	O	0	O

30-minute massage session	0	0	0	0	0
Gift cards for local healthy restaurants, grocery stores, or sporting goods stores	O	O	O	O	O
Provide a free lunch for participants	0	О	О	О	О
Workout equipment such as flex bands or stress balls	0	0	0	0	0
Subscription to a health-related magazine	0	0	0	0	0
Pedometer	0	О	0	О	О
Cash prizes	О	0	О	0	О

Short-term reserved parking space	0	0	0	0	0
Free or low cost onsite screenings	0	0	0	0	0
Prize drawings for meeting goals	0	0	0	0	0
Extra days off	О	О	Ο	Ο	О
Other	0	О	О	О	0

## Q4 My general health is:

- **O** Excellent
- Very Good
- O Good
- O Fair
- O Poor

## Q5 Each week I exercise (a minimum of 30 minutes per session):

- **O** 0 times per week
- **O** 1-2 times per week
- **O** 3-5 times per week
- **O** 6-7 times per week
- **O** 8+ times per week

## Q6 Do you feel you get enough physical exercise?

- O Yes
- O No
- **O** Unsure

The following demographic questions are optional and once again, all responses will be kept confidential.

## Q7 What is your gender?

- O Male
- **O** Female

Q8 What is your age?

Q9 How long have you been employed at this company?

Q10 What is your individual income?

Q11 What is your total household income?

Q12 Please provide any additional comments you have in the space below.

Appendix D

Institutional Review Board Approval



February 16, 2015

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Dear Amy Hedman:

Re: IRB Proposal entitled "[699112-2] Employees' Interests and Preferences Regarding Worksite Exercise Programs" Review Level: Level [I]

Your IRB Proposal has been approved as of February 16, 2015. On behalf of the Minnesota State University, Mankato IRB, we wish you success with your study. Remember that you must seek approval for any changes in your study, its design, funding source, consent process, or any part of the study that may affect participants in the study. Should any of the participants in your study suffer a research-related injury or other harmful outcome, you are required to report them to the Associate Vice-President of Research and Dean of Graduate Studies immediately.

The approval of your study is for one calendar year less a day from the approval date.When you complete your data collection or should you discontinue your study, you must submit a Closure request (see <a href="http://grad.mnsu.edu/irb/continuation.html">http://grad.mnsu.edu/irb/continuation.html</a>). Please include your IRBNet ID number with any correspondence with the IRB.

Sincerely,

Mary Hadley, Ph.D. IRB Coordinator

Julie a. Carbon

Julie Carlson, Ed.D. IRB Co-Chair

Giffrey Bucharan

Jeffrey Buchanan, Ph.D. IRB Co-Chair

Generated on IRBNet

Appendix E

**Company Letter of Permission** 



February 5, 2015

Amber Butcher 1770 Pheasant Circle Excelsior, MN 55331

Amber:

Southern Minnesota Municipal Power Agency (SMMPA) grants you permission, as a graduate student at Minnesota State University, Mankato, to survey our employees regarding their interests and preferences regarding worksite exercise programs for the purpose of research for your thesis.

Authorization to conduct this survey is based on our understanding that participation will be voluntary, responses will be confidential, and the results will be shared with SMMPA by June 1, 2015.

We look forward to working with you on this project and are confident the results will help us create programs and activities to enhance our wellness efforts at SMMPA.

Sincerely,

Sandra K. Feehan, CPA (inactive), SPHR Human Resources Manager