The B.L.U.E. collar program: building safe labor practices and utilizing wellness for employees

Chase A. Majewski

The University of Toledo

Follow this and additional works at: http://utdr.utoledo.edu/graduate-projects
The B.L.U.E. Collar Program: Building Safe Labor Practices and Utilizing Wellness for Employees

Chase A. Majewski
Faculty Mentor: Martin Rice, Ph.D., OTR/L
Site Mentor: Michael Milicia, OT/L
Department of Rehabilitation Sciences
Occupational Therapy Doctorate Program
The University of Toledo
May 2013

Note: This document describes a Capstone Dissemination project reflecting an individually planned experience conducted under faculty and site mentorship. The goal of the Capstone experience is to provide the occupational therapy doctoral student with a unique experience whereby he/she can demonstrate leadership and autonomous decision-making in preparation for enhanced future practice as an occupational therapist. As such, the Capstone Dissemination is not formal research.
I. Executive Summary

The goal of the BLUE Collar Program (Building safe Labor practices and Utilizing wellness for Employees) Program is to increase overall health and wellness, as well as reduce potential for work injuries among employees. The program is designed to arm employees in the greater Cleveland area with knowledge and skill necessary to prevent injuries and live a healthier lifestyle. It is believed that a healthier, safer workforce is also a more productive workforce.

The program is implemented within the employees’ place of employment in order to tailor injury prevention programming to their specific job tasks.

The components of programming involve education on musculoskeletal injuries and how to avoid them. Using principles of biomechanics, participants are educated on proper lifting and material handling techniques. Also, depending upon the nature of their work, employees will be evaluated on their technique and safety when performing job tasks. The occupational therapist facilitating the program will provide recommendations to the participants in order to prevent injury.

In addition to injury prevention programming, participants will engage in health promotion occupations and discussions. Many aspects of wellness, nutrition, and exercise have changed within recent years due to continued research and technology. Program components introduce these new concepts and give participants resources to improve their health.

The program includes both formative and summative evaluation methods in order to be able to continuously improve upon itself. Participants and their employers will have the chance to evaluate the components of the program at midpoint and at the end of programming. This will ensure that programming is beneficial to all stakeholders involved.
II. Introduction

A. Program Goal

The goal of the BLUE Collar (Building safe Labor practices and Utilizing wellness for Employees) Program, provided by The Cleveland Clinic Return to Work Services Department, is to increase overall health and wellness, as well as reduce potential for work injuries among employees.

B. Sponsoring Agency

The BLUE Collar program will be held at the participants’ place of employment. If this is not possible for all sessions, the Cleveland Clinic Return to Work (RTW) Services Department, located in the W.O. Walker Building of Cleveland Clinic’s Main Campus will be used. The specific jobsite analysis component of the program must be held at the companies that program participants are employed at. The head occupational therapist, Michael Milicia, OT/L, at the RTW Services Department currently provides services for injured workers. This program will provide a more proactive approach to prevent the injuries and conditions that he commonly encounters in his caseload. The mission of the Cleveland Clinic Foundation is “to provide better care of the sick, investigation of their problems, and further education of those who serve” (The Cleveland Clinic, 2013). The specific mission of the RTW Services Department is “to help injured workers return to work quickly and safely as well as arm them with skills to avoid re-injury and to work safely, productively and positively for the remainder of their career.” (The Cleveland Clinic, 2013). The goal of the BLUE Collar Program fits with the specific mission of the RTW Services Department because it aims to prevent injury, educate on safe work habits while incorporating general wellness initiatives, and improve overall productivity in employees. Cleveland Clinic’s RTW Services Department provides treatment to workers that have sustained injuries which result in decreased ability to successfully perform job tasks. As stated before, the
purpose of the BLUE Collar Program is to proactively reduce risk for injury and/or disease. The BLUE Collar Program will be facilitated by a licensed Occupational Therapist at the Cleveland Clinic RTW Services Department (See Appendix A).

C. Procedures Used to Assess Needs

Northeast Ohio has a very diverse workforce. In order to obtain a general sense of the needs and desires of the workforce population, interviews with local Cleveland area employees were conducted (See Appendix B); surveys were completed by local Cleveland area employees (See Appendix C); habits of local Cleveland area employees were observed (See Appendix D); and meetings with safety coordinators from a local Cleveland area companies were held. A semi-structured interview was conducted with Michael Milicia, in order to gain an expert’s opinion on the current state of workplace injury prevention (See Appendix E).

Fazio (2008) states that surveys are a preferred instrument when it is difficult to administer a focus group or individual interviews (p.117). The surveys provided to employees were completely anonymous in order to increase validity of responses. While employees were expected to provide honest answers, as with any survey there is the possibility of questionable answers. Although anonymous, it was up to the employees to share information that could be considered sensitive and private. The surveys were designed to be brief and give a quick snapshot on quality of life for employees. The results illustrate the opinions and attitudes of employees on workplace safety and injury prevention. The surveys quickly address major health issues linked to disease, injury, and hospitalization. It is important to survey which health issues are most common in order to tailor programming to the needs of employees.

When appropriate, individual interviews were held with employees in addition to the surveys. The interviews gained further information about the health habits of the employee, as
well as their thoughts on the health habits of the companies’ employees as a whole. Additionally, specific needs of the employees were discussed. The employees were asked about what types of programming they have participated in, what safety training they have received, and whether they believe it was helpful or not.

Among companies that would allow it, observation hours were conducted within the workplace. Informal discussion was conducted with employees as they performed their job tasks. Their mannerisms and work habits were observed and recorded at a separate time in order to prevent anxiety from being observed. Observations included techniques used while handling work materials, positioning, and interaction with others.

Separate discussions were conducted with designated safety personnel at the workplace. An explanation of the companies’ safety program was provided and the different responsibilities of the designated safety coordinator were discussed. Any ideas that the safety coordinator had for programming was provided as well.

A semi-structured interview was conducted with Michael Milicia, OT/L at Cleveland Clinic Return to Work Services. This interview gained the perspective of an expert in the field of worker rehabilitation and conditioning. The interview provided ideas of possible programming, as well as his opinions on what is needed based on his experience with injured workers. Mr. Milicia knows which injuries are common, what risk factors contribute to disease and injury, and the rehabilitation process for injured workers.

D. Needs According to Stakeholders

Surveys were provided to employees in many different professions. A majority of surveys were provided by workers at a local northeast Ohio grocery store chain called Heinen’s, Inc. A total of 60 employees across three different store locations completed surveys from this
Additional surveys were completed by employees that work in hospital settings, the automotive industry, manufacturing companies, public services, and few individuals in trade work such as electricians and mechanics.

The surveys proved to be a simple yet effective snapshot of employee health and wellness. A total of 78 surveys were completed. The level of education was important to consider when evaluating the degree of health and wellness a person possesses. According to the Centers for Disease Control (2012) “People with higher levels of education and higher income have lower rates of many chronic diseases compared to those with less education and lower income levels”. Within the sample surveyed, nearly half (36 of 78) stated that they had an educational level that consisted of “some college” or above. Of those, 21 possessed some type of degree (associate’s degree or higher).

The survey items that deal with stress revealed surprising results. An overwhelming majority of employees (48 out of 78 surveyed) rated “somewhat agree” or “strongly agree” that to the statement saying that their job causes unreasonable amounts of stress in their lives. Interestingly though, 71 of the 78 surveyed stated that they manage their stress levels well by rating “somewhat agree” or “strongly agree”. This shows that while many believe their job is stressful, it is not something that they are not able to cope with. Only 4 participants rated that they do not have enough leisure time for themselves by rating “somewhat disagree” or “strongly disagree”. This shows that even though the job may be stressful, they receive enough time off to enjoy themselves.

Items four and five on the survey deal with an individual appraisal of habits that impact health. 27 employees indicated that they try to refrain from unhealthy habits such as smoking and consuming alcohol (rating “somewhat agree or strongly agree”). An additional 47 rated
neutral to this statement, while 4 rated “somewhat disagree”. Question five relates to the pursuit of healthy habits such as exercising and eating a balanced diet. Only 31 rated “neutral” for this item, and 34 rated “somewhat agree” or “strongly agree”. Questions four and five pose a possible issue in validity. Those that rated “neutral” on question four may participate in unhealthy habits, but may be embarrassed to rate themselves negatively. Another possibility is that they perhaps do refrain from unhealthy habits but do participate in them in certain occasions, thus justifying their “neutral” rating. It is refreshing to see that more participants rated that they “somewhat agree” or “strongly agree” to participating in healthy habits such as exercise.

Through conversation and interview, common themes arose. Many employees felt that their job was repetitive and boring at times. One employee described his work as “monotonous”. While they possess these feelings, they take much pride in their work. Most people seemed to enjoy their work, but expressed difficulty balancing other aspects of life while on a limited income. Four employees indicated that they have a second job in order to stay financially comfortable. All employees felt that there was some degree of danger or risk of injury involved in their job. Specifically in manufacturing jobs, employees felt that the large machinery could significantly injure an individual if not operated correctly. When asked whether safety training programs were provided, all employees said yes, although there were varying degrees of training. As would be expected, manufacturing and trade jobs seemed to have consistent and continuing safety training provided to them. An individual working for General Motors stated that training occurs after a shift has finished at least once a month, even sometimes on a weekly basis. There appears to be a correlation between the amount of risk of injury and the amount of safety training received. For example, the individual working for General Motors receives training at least monthly and also expressed that all of the work tasks accomplished pose risks for injury.
Conversely, individuals working in a grocery store indicated that they received training once they were hired and not again since. Overall, they don’t believe that their jobs pose great risk for injury unless operating machinery or using sharp utensils. The importance of safety guidelines and training was deemed important by all employees. When talking with a previously injured baggage handler working for an airline, he stated that they are continuously practicing safety and taught the proper way to lift objects, but most people don’t abide by them. Although unfortunate, almost all employees that he was worked with have had some time off due to injury at one point in their career. He admitted that he did not always use safe lifting techniques until he was injured, and now he will make a conscious effort to use them.

Different companies had different expectations and consequences for not following safety protocol. Employees of the auto industry stated that they had to use protective equipment and if they were seen without it, they would be fired or suspended from work. Hospital workers believed the same thing and expressed that abiding by safety guidelines not only protects themselves, but also the patients that they serve as well. Among grocery store workers, most believed that they do adhere to guidelines but they are not strongly enforced. Management expects them to follow safety procedures, but does not watch for faults.

When discussing current programming that addresses wellness and health, only employees that worked in the hospital were provided with wellness and health promotion programs. Interestingly there was no company-sponsored programming that addressed general health and wellness in any employee interviewed. This illuminates a need for potential programming to prevent disease and help employees to have a higher quality of life. When asked about the possibility of wellness programming provided by their employers, all individuals agreed that it was a good idea, however they may not participate due to other responsibilities.
Some possible incentives were discussed, such as a decrease in health insurance premiums, discounts for local gym memberships, or cash awards. While this appeared to increase interest in programming for some individuals, others were still not interested due to family commitments and having long work hours already.

A discussion was also conducted with management of two different companies. The idea of a wellness program intrigued them, although they stated that it would be difficult to justify paying for a program unless guaranteed to provide long-term reduction in worker’s compensation and other health-related costs. They brought up the issue of employee participation as well, stating that most employees do not participate in outside functions provided by the employer, such as parties and gatherings, unless there is an incentive. They felt that if they would fund a program for their employees, the employees would treat it as extra unwanted training for work. With the use of initiatives, employees would be more willing to attend and participate. Other programming possibilities were discussed, including the need for mental health maintenance, basic fundamental education such as handwriting, and also computer classes. Managers stated that many jobs are starting to require use of a computer which many of their employees do not use on a regular basis. Instruction for typing and basic word processing is needed.

Observation was used in two of the companies in order to gain an objective view on safety within the workplace. Perhaps the most astonishing observation made was the lifting techniques used in the workplace. Within the grocery store chain, both at the warehouse and individual stores, poor body mechanics were used when lifting materials. The poor body mechanics included bending at the waist, twisting and pivoting while handling boxes, and using one-handed carries when two hands are available. Many employees worked overhead with arms
outstretched to load and receive boxes of goods to be transferred to shelves for purchase. Overall, the attitude of employees appeared cheerful when interacting with customers, although they appear more bored while in the break room. All were very welcoming and willing to discuss and explain their job tasks. Through observation, need for further programming became evident. The use of poor body mechanics in the workplace is an issue that requires additional reinforcement.

Lastly, a semi-structured interview was held with Michael Milicia, OT/L at Cleveland Clinic RTW Services. Mr. Milicia is the head occupational therapist and clinical manager at the Cleveland Clinic RTW Services department. Mr. Milicia believes that there is a strong need for injury prevention training among employees. During his treatment of clients, which occurs after a workplace injury, he includes injury prevention methods to ensure that these types of injuries do not occur again. Mr. Milicia believes that a program targeting prevention of injury as a proactive approach would be very beneficial to employees. He stated that there are some programs available for certain industries through OSHA. While OSHA provides many good resources, he feels that occupational therapists are very qualified and could provide programming because they can be consultants in many areas of health, including diet, smoking cessation, ergonomics, and lack of exercise.

The difficulty with starting a program is recruiting participants. Most employers will need to be convinced that a program will reduce costs in worker’s compensation. The employer will have to incur the cost of the program and understand that it would cut costs overall by reducing costs due to injury, while developing a more productive workforce. It will be difficult to get employees to participate as well. Mr. Milicia states that he believes many individuals who already live a healthy lifestyle will be more receptive to a program, especially if they do not
currently have access to healthy choices in life. Others will not want to participate at all no matter what, and these are the individuals who only become interested when they become injured and lose function. Some specific components of programming that Mr. Milicia thinks could be included are safe lifting and material handling techniques, giving a general description of anatomy and the human body with a biomechanical emphasis, and incorporating pre-employment screens, and best practices for the workplace.

E. Review of Literature

In January of 2013, there were approximately 134,825,000 civilian workers in the United States (U.S. Department of Labor, Bureau of Labor Statistics, 2013). Within the state of Ohio, there were approximately 5,766,000 individuals employed in the workforce at the end of year 2012 (Ohio Department of Job and Family Services, 2012). Of these Ohio workers, northeast Ohio employs approximately 1,927,099 individuals, according to the latest data available (Cleveland Plus, 2011). A significant amount of these workers can be described as “blue collar” workers. Blue collar workers “refer to employees whose job entails (largely or entirely) physical labor, such as in a factory or workshop. For a piece of work to be termed blue collar, it should be directly related to the output generated by the firm, and its end result should be identifiable or tangible” (Business Dictionary, 2013). These workers are involved in many different industries. These can include but are not limited to food distribution, automotive manufacturing, construction, trade professions, and other manual labor.

Within many different industries, work-related injuries may occur, which increases the burden on employers to pay for worker’s compensation costs. Workplace injury may also be referred to as occupational injury. Melhorn (2000) defined occupational injury as “resulting from a work-related event or from a single instantaneous exposure in the workplace
environment” (p.1490). The statistics on workplace injury are astonishing. According to OSHA, each year approximately 4.3 million Americans suffer from nonfatal workplace injuries, resulting in over $156 billion being spent on healthcare. In the private sector, over 5,200 Americans die each year from workplace injuries, while an additional 50,000 die from workplace illnesses (Repa, 2010, p.215). According to a different source, the rate of workplace injury is much greater. The American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) (2012) states that current statistics underestimate the problem of workplace injury and illness due to limitations in the injury reporting system. The true toll is estimated to be between 7.6 million to 11.4 million injuries/illnesses per year. That is nearly two to three times what has been reported, resulting in an estimated $250-$300 billion to care for these injuries.

Despite the alarming rate of injury and illness in the United States, improvements appear to have been made in the past few decades. According to Repa (2010) “OSHA reported that the rate of workplace injuries has declined fairly steadily since 1992, which it attributed to improvements in workplace safety and the decline in the number of manufacturing jobs.” It can be assumed that with higher expectations, tighter restrictions, and advancements in technology, workplace injuries would steadily decline. However, the U.S. Government Accountability Office discovered the possibility of skewed statistics from a study conducted in 2009 which reviewed OSHA’s claims. Repa (2010) explains that from the study, the U.S. Government Accountability Office found that OSHA failed to include approximately two-thirds of all workplace injuries and illnesses. OSHA relies on employers to provide data, and over half the safety and health representatives of companies surveyed stated that they experienced some form of pressure to downplay or disregard injuries which would reflect poorly on the company (p. 215). Statistics may be flawed due to a decrease in employee reports as well. Some employees may not report
injuries in fear of receiving disciplinary action or raising their healthcare premium. These facts suggest that the issue of workplace injury and illness may be much more serious than what the statistics provided by OSHA illustrate. Wax (1994) explains that the occupational injury and illness rates in the United States are one of the highest of any industrialized nation (p.13). According to Wax (1994) “Many factors in the U.S. economy have caused this situation (increase in work injury). Among them are a lack of safety training, frequent job changes, decreased unionization, and lack of worker protection.” (p. 14).

Specifically in Ohio, the rates of injuries follow the same national trend. The Ohio Bureau of Workers’ Compensation (BWC) provides statistics for the 2012 fiscal year. According to the Ohio BWC (2012), a total of 112,613 claims were opened due to occupational injury in 2012. A total of 1,070,056 claims were open or active throughout the year. A large amount of claims translates to large increases in worker’s compensation costs. The Ohio BWC (2012) stated that a total of $748,851,329 was paid in only medical benefits. When additional costs, such as compensation for wage loss were factored in, that amount increased to $1,078,698,925, which is over a $25 million increase from fiscal year 2011. Workplace injury and illness is a real issue across the nation, and especially in Ohio.

As stated before by Repa (2010), over 5,200 Americans die each year from occupational injuries with an additional 50,000 from occupational illnesses. This is an alarming statistic that is not widely recognized. Wax (1994) states that “work can be dangerous to one’s health. As people head off to work, they usually do not consider that a significant amount of Americans die each year from on-the-job injuries. Everyday work can injure the musculoskeletal system – bones, muscles, and nerves – as well as the lungs, skin, eyes, reproductive organs, heart, blood, liver, and urinary tract” (p. 61). The AFL-CIO (2012) claims that an average of 13 fatalities
occur on the job each day. Many different accidents may lead to fatalities. In the state of Ohio, a substantial number of fatalities (27%) result from being the driver or passenger in a vehicle. The next leading cause is a fall or slip, which accounts for 18% of fatalities. The next two leading categories of fatalities are being struck by a falling of flying object and workplace violence, accounting for 12% of fatalities each (Ohio Bureau of Workers’ Compensation, 2012).

Some workplace injuries can be classified as musculoskeletal issues which are “traditional traumatic injuries such as fractures, sprains, strains, dislocations, and lacerations” (Melhorn, 2000, p. 1490). These injuries are usually the result of a single accident or occurrence. An additional category of injury is musculoskeletal illness, which can include cumulative trauma disorders or repetitive motion disorders (Melhorn, 2000, p. 1490). The U.S. Department of Labor, Bureau of Labor Statistics (2004) revealed that repetitive motion disorders on average led to 24 days of absence from work in 2010. Repetitive motion leads to overuse of muscles and tendons, bones and ligaments, causing pain, discomfort, and in some cases disfigured body parts. Repetitive motion may come from many different jobs. Wax (1994) explains that “the workplace is fraught with repetitive motion. A data entry operator may perform 20,000 keystrokes per hour and a meat cutter may cut 12,000 times per day.” The rate of repetitive motion disorders have increased due to advances in technology and increased production demands. According to the Bureau of Labor Statistics, in three years, from 1984 to 1987, repetitive motion disorders doubled to over 72,000 cases, then increasing by nearly a third in 1988 to 115,000, and to 147,000 in 1989 (Wax, 1994, p.62). With advances in technology, many jobs have become more sedentary in nature. Wax (1994) explains:

As people spend more time at computers, sitting at a desk, looking at a screen, and typing, they become more susceptible to repetitive stress injuries. Human beings are not
meant to do repetitive motions all day in workspaces not set up to accommodate either
the equipment or their bodies. The result is damage to muscles in the fingers, wrists,
hand, arms, neck, head, and back. (p.270)

Repetitive motion disorders account for a large portion of workplace injuries. Since they evolve
over time, workers may not believe that are a result of the job tasks performed. Due to this,
some workers with repetitive motion disorders do not seek treatment through worker’s compensation. However, the cost is still very high. Kahn (2004) estimates the cost of repetitive motion disorders to employers to be over $100 billion each year. In just over a decade, the number of worker’s with illness due to repetitive motion increased from 22,600 (in the year 1982) to 302,000 (in the year 1993)(p.68).

Yet another common category of workplace injury is lower back injuries. Lower back injury is identified to account for over 20% of occupational injuries. These injuries are generally the result of improper lifting techniques. (U.S. Department of Labor, Occupational Safety and Health Administration, 1996). Unlike repetitive motion injuries and disorders, lower back injuries have been an issue for a long time. According to Wax (1994), “Lower back pain is one of the oldest workplace health problems. Even in ancient Egypt, doctors used leg-moving exercises to diagnose the pain of back injuries.” The rate of back pain in the currently in the workplace is very high. Wax explains that 14 % of adult American workers have back pain at any given moment, and each year over 2% of Americans lose work time due to back pain. Being the second most common reason for work absence, the costs of back pain in America are over $16 billion per year (1994, p.63). Annually, approximately 50% of the workforce experiences back pain, whether it is mild or severe (Kahn, 2004, p 38). The causes of back pain are numerous. Mainly due to improper form when handling materials, it is somewhat of a repetitive
motion or repetitive trauma injury. Kahn (2004) states that “Common causes of lower back pain include – improper and/or excessive methods of lifting, pulling, pushing, carrying, holding, or throwing an object, lowering, twisting, or bending, a sudden slip or fall, or cumulative trauma, or multiple micro-injuries sustained over a period of time” (p. 39).

There may be links between musculoskeletal disorders that workers experience and lower back/spine injuries. Kahn (2004) explains a study conducted by the National Institute of Occupational Safety and Health:

NIOSH examined the relationship between selected musculoskeletal disorders of the upper extremities and lower back, and exposure to physical factors at work. The review established strong evidence that lower back disorders are associated with work-related lifting and forceful movements. The review also cited strong evidence of a causal relationship between low back disorder and whole body vibration (WBV), which occurs when mechanical energy oscillations are transferred to the body as a whole. Typical exposures to WBV include driving automobiles or trucks and operating industrial vehicles. (p. 39).

It is interesting to learn that there is a link between simple work tasks such as driving a vehicle to lower back injuries. This is something that should be taken into account when establishing safety and injury prevention training procedures. Safe lifting and material handling techniques should be implemented and enforced in all workplaces because they are not only important in preventing injury in the workplace, but they can also be generalized to home use.

Aside from physical disorder, psychological disorder can contribute to work injury as well. Gura (2002) explained that “Everyday, employees cope with various forms of stressors on the job. Increased risk for psychological and physical disorders may be due to emerging work
related-trends.” These trends include stressors such as repetitive job tasks, continuously working in a fast-paced environment, and fear of being laid off, especially during budget cuts (Gura, 2002). Stress has various sources in the workplace. Kahn (2004) cites authors who identified major job stressors that impact workers’ health and productivity:

According to authors Daniel A. Girando, George S. Everly, and Dorothy E. Dusek, in their book *Controlling Stress and Tension: A Holistic Approach*, major factors are work overload, lack of control, being underqualified, and job interference with interpersonal affairs. Other stressors include job ambiguity and role conflict, stifled communications, discrimination, bureaucracy, inactivity and boredom, poor financial rewards, and lack of career guidance, promotion, and reorganization (p. 297).

Wax (1994) states that “delegation of tasks, decision-making authority, communication difficulties, and regulations can all contribute to stress. Relationships with supervisors are a particularly important stress factor. Good interpersonal support from co-workers or a supervisor can alleviate stress” (p.89). Unfortunately, positive relationships are not always present at the workplace. Support for one another is not always found, and some individuals experience pressure from their work superiors. A supervisor communicates with workers that failure to meet demands lowers the productivity and profit of the company; this is very stressful for the worker. The concerns of the worker usually spread in other areas of the workers’ lives, such as family, making work problems accumulate day after day instead of diffusing in time off (Wax, 1994, p.88).

The contribution of stress in the workplace may allow for carelessness of employees, thus resulting in less productivity. Carelessness with equipment may increase risk for injury as well. Additionally, it may lower company morale, reducing overall productivity. Maintenance of
stress and psychological well-being is actually considered extremely important in the workplace by 48 different Fortune 1000 companies that ranked “improving mental health” as a top priority of their company (Gura, 2002). It is important to consider the psychological component of work while designing programming.

Another contribution to workplace injury is the specific health risk factors that an individual possesses. According the Centers for Disease Control (2010), “More than half of all Americans suffer from one or more chronic diseases.” Some examples of chronic diseases include heart disease, cancer, stroke, or diabetes. These national trends are most closely related with obesity, diet, lack of preventative care, and tobacco/alcohol use (Centers for Disease Control, 2010). A target of programming for the adult employee should be management of health risks to reduce costs in healthcare paid through worker’s compensation. According to Hodges, Harper, Hall-Barrow, and Tatom (2004), “a study conducted to determine the relationship between total health care costs and modifiable health risk showed that 11 factors (i.e. current or former smoking, obesity, nutrition, high blood pressure, sedentary lifestyle, stress, depression, alcohol use, high cholesterol, high blood glucose levels) attributed to 25% of health care costs” (p. 247).

It is no secret that obesity is becoming an epidemic in today’s American society. The Weight of the Nation (Teale and Chaykin, 2012) explains that “starting in the 1980’s there was a rapid increase in obesity to the current level which is over one third of adult men and women. We have seen the most striking increase in morbid obesity from 1980 until 2008.” In order to classify an individual as obese or overweight, Adolphe Queltelet first defined the average body measurements of a person, and then developed the Body Mass Index (BMI) by taking in to account individuals’ height and weight. According to the BMI, an adult with a BMI between
18.5 and 24.9 are considered to be at a healthy weight. Adults with BMI ranging from 25-29.9 are considered overweight, and adults with a BMI 30+ are considered obese (Teale and Chaykin, 2012). Unfortunately, most likely due to a more sedentary lifestyle and ease of obtaining unhealthy, processed foods, there have been increases in BMI scores across the nation. Teale and Chaykin (2012) explain a recent survey conducted by the Centers for Disease Control and Health, which determined that 68.8% of American adults were considered overweight or obese. Being overweight or obese affects the ability to perform job tasks. Obesity, along with diabetes, is crippling the workforce. “We are going to have productivity problems due to obesity. Employer/employee problems will become more common with increasing premiums for health insurance for obese individuals” (Teale and Chaykin, 2012). Jobs that require physical fitness, strength, and endurance will be difficult for many to accomplish. Twenty-seven percent of young people that are trying to get into the military are unable to due to being overweight, and public services such as police and fire are effected by obesity too (Teale and Chaykin, 2012). Education and access to healthy diets and exercise is necessary for a healthy workforce, as well as an overall healthy population.

A well-known health risk factor in our society is smoking. “Smoking is perhaps the best example of how individual behavior can have a direct impact on health. Today, cigarette smoking is recognized as the single most important preventable cause of death in our society” (Wax, 1994, p.10). Smoking can lead to health issues such as cancer and death, as well as being a risk factor for heart and lung disease. Smoking is an issue that not only affects the individual partaking in the habit, but those around them as well. Repa (2010) states that “the torturous effects of tobacco smoke on human health have clearly been established and even certified by the government. A recent report from the Surgeon General estimated that secondhand tobacco
smoke causes approximately 53,000 deaths in nonsmokers per year” (p.229). Luckily, the number of individuals who smoke has decreased over the years, yielding less illness due to education on disease and death associated with smoking. According to Wax (1994):

Since the release of the Surgeon General’s report on smoking in 1964, the proportion of adult smokers has declined substantially, from 43% in 1965 to 30.5% in 1985. Since 1965, 37 million people have quit smoking. Although there is still much to do to become a smoke-free society, it is heartening to note that public health and education efforts – such as warnings on cigarette packages and bans on broadcast advertising – have already had significant effects (p.10).

A more positive note is that changes have been continuously been made to decrease the number of smokers and limit where smoking is allowed. Specifically in the workplace, laws have begun to restrict smokers from partaking in the habit. Repa (2010) explains, “although there is no federal law that directly controls smoking at work, a majority of states protect workers from unwanted smoke in the workplace” (p. 230). So each state has different regulations on smoking. The Ohio Revised Code has laws that apply to any enclosed workplace except a family owned business that is not open to the public. Smoking is only permitted outdoors in areas that are physically separate from enclosed areas, and smoke must not be able to reach entrances or windows (Repa, 2010, p.243).

In summary, there are multiple factors that contribute to workplace injury and illness. The Ohio Bureau of Worker’s Compensation (2012) explains that the total amount of time lost due to work injuries is over 13,000 hours. Nationally, the same trend is present. Given the statistics presented within this literature review, high costs are associated with employee injury. The monetary costs of worker’s compensation claims are usually above the regular employee
wage. In addition to the extra monetary costs, there is the cost of time lost. The effects of time lost include higher demands for productivity on other employees, or the possible need to hire another employee to temporarily replace the injured worker.

Prevention of occupational injury is the key to reduction of workers’ compensation costs and increased productivity. Goetzel and Ozminkowski (2008) stated that “Today, many employers associate poor health with reduced employee performance, safety, and morale” (p. 305). This indicates that there is an observed connection between health, safety, overall well-being and productivity. Through a proactive approach, programming can improve workers’ health and well-being while learning methods to prevent injury. Also, employers are satisfied because of improved employee performance. It is possible that a majority of occupational injuries, illnesses, and fatalities are avoidable by implementing modifications to the worksite environment and employee behaviors. Additionally, education on certain risk factors, as well as access to resources that assist with adopting a healthy lifestyle, may change workers’ attitudes toward modifiable risk factors.

It makes sense to incorporate wellness programming within a work setting. As many individuals obtain their health insurance through their employer, adding a program that incorporates health promotion appears to fit well. Kahn (2004) defines health promotion:

Health promotion is the science and art of helping people change their lifestyle to move toward a state of optimal health. According to the American Journal of Health Promotion, optimal health is defined as a balance of physical, emotional, social, spiritual, and intellectual health. Lifestyle changes can be facilitated through a combination of efforts to enhance awareness, change, behavior, and create environments that support good health practices (p.166).
Wellness programs, whether very involved or smaller in nature, already do have a place in some larger corporations, although many smaller and mid-size companies still lack the resources to incorporate wellness programs for their employees. Those that do have wellness or health promotion programs report that the results are favorable. “Companies say wellness programs have proven effective, with reductions in blood pressure, smoking, and cholesterol levels. For instance, about 1,000 people have participated in Cigna’s weight management program in 2001, and the average weight loss was 10 to 15 pounds” (Kahn, 2004, p.330).

The difficulty with incorporating new programming in the workplace is recruitment. Employers must take the program seriously and enforce the principles taught within it. Specifically in injury prevention, OSHA provides regulations that must be enforced in the workplace. However, simply adhering to a safety protocol does not protect against repetitive motion and other illnesses, it only protects from accidental injury, generally in one single event. Also, many programs have a low retention rate with employees. While employees may understand new techniques for safety and health, old habits that contribute to injury and an unhealthy lifestyle resurface. Planek (1994) explains:

Simply adhering to OSHA regulations usually produces a program that is superimposed upon, as opposed to being integrated into, an organization’s management system. In this scenario, employee safety and health typically receives a flurry of attention and increased resource allocations. The new changes may show immediate and even dramatic improvements, but the effectiveness will diminish and eventually be lost unless they become part of the organization’s culture.

New programming in the area of safety and health in the workplace should aim to produce long term results and continuous education to increase the employee retention rate. There appear to
be three common conditions that contribute to successful programming and continuous quality improvement in employee health, they include:

New programming in the area of safety and health in the workplace should aim to produce long term results and continuous education to increase the employee retention rate. There appear to be three common conditions that contribute to successful programming continuous quality improvement in employee health, they include:

- management commitment to increased employee safety and health,
- employee education and development increasing understanding of safety and health initiatives, and
- empirical data, including satisfaction surveys that help to define safety and health problems, and evaluate the success of programming (Planek, 1994).

Support for programming is hit or miss among employers as well as their employees. Naturally, many individuals disagree that their health is an issue that their employer should be involved with. Wax (1994) explains the attitudes of participants:

Support for employee assistance programs has not been unanimous. Some critics view them as pawns of management. To others the programs appear to be another management fad and a waste of money. Some employees fear a lack of confidentiality. And when a union exists in the workplace, the employee assistance program may be caught between the interests of management and labor (i.e. an employee being placed in a drug abuse program instead of being fired).

While some may not agree with programming dealing with health promotion and wellness, there is still much support for safety oriented education in the workplace. Bryan Boyd is the safety supervisor for Caterpillar, a company that manufactures and operates large machinery used in
construction. Caterpillar uses the OSCAR (Occupational Safety Climate Assessment Report), which is a product of the National Safety Council. This assessment is provided to employees so that they can rate their agreement on a 5-point Lickert scale on topics dealing with leadership’s commitment and participation in safety, employee involvement with safety, safety programs and activities, and the organization climate in respect to safety (Parker, 2006). Essentially, the OSCAR evaluates the effectiveness of safety programs and allows employees to provide suggestions on how to improve training. According to Bryan Boyd, the OSCAR has been given for over seven years, and the results have been favorable. Scores have improved each year in all areas, but the suggestions that employees make remain the same, such as the category of employee involvement in programming. So the OSCAR lets Caterpillar know that they are doing better and better as a company providing safety training, but more training is still wanted and is considered very important (Parker, 2006).

There are other factors that need to be overcome in order for programming in this area to be successful. In order to ensure success of the program, certain issues need to be taken into account. A major issue that may contribute is lack of employee participation. Employees may not feel that they have the time to commit to a voluntary employee program. They might have outside obligations that prevent participation in a program as well. Haisley, Volpp, Pellathy, and Loewenstein (2012) explain that achieving high rates of employee participation in programs are difficult to obtain. One way to remedy this and improve participation could be to provide incentives. Haisley et al. (2012) stated that, “Although the research finds that incentives are helpful in motivating program participation, the behavioral economics literature suggests that, holding costs constant, different types of incentives can have dramatically different efficacy” (p. 184). Some different types of incentives could include cash, a reward of more vacation time, or
company sponsored social events. Possibly the most relevant and appropriate reward could be a reduction in the employee’s share of costs for healthcare insurance.

In the study by Haisley et al. (2012), a unique incentive program is described. Within a healthcare management company, employees were divided into three groups and asked to participate in a program that assessed health risks. The first group was given an incentive of $25 for participating, and the second group was given the same $25 with an additional $25 gift card to a grocery store upon completion of the program. In the third group, a lottery was introduced along with $25. The third group was separated into teams, and each team was to encourage its members to participate in the program. Each week, a team drawing would occur. The members of the team that was drawn in the lottery would receive $100 extra as long as the individual participated in the program. If at least 80% of the team had participated in the program, then the amount went up to $125, for a total of $150 per participant of each team. The results of the incentive program are as follows: 40% of the first group ($25 cash incentive) participated in the health program, 44% of the second group ($25 cash plus $25 gift card) participated, and 72% of the third group (lottery) participated. The results from this study are interesting. They suggest that employees may be willing to participate in a program if only given the chance for a large cash incentive. Haisley et al. (2012) argued, “As employers strive to achieve higher rates of engagement in wellness programs to control health care costs, incentive designs that amplify the motivation to participate may be essential to achieving clinically significant effects” (p. 187). In this study, it is suggested that lotteries may improve participation rates more than a flat payment rate because people may tend to overweight small probabilities in decision making.

Another issue that may prevent success is the motivation of employers to adopt and implement an employee programs. Goetzel and Ozminkowski (2008) identify probable causes
of this as first, “a subset of employers are philosophically opposed to interfering with their workers’ private lives, health habits, and medical decision making. Some employers consider worker health programs as luxuries and not central to the organization’s main business purpose” (p. 305). Goetzel and Ozminkowski (2008) go on to explain that other reasons could include that a program could distract workers from their duties, the upfront cost is too much, or they do not have the resources. The National Academy of Sciences (1999) conducted a study and found that total costs (for workplace injury) were over $1 trillion per year. They concluded that preventing injury through active intervention is cost effective for the employer. However, they stated that employers are reluctant to participate in programs to prevent work-related muscle pain. The employer is the main decision maker in whether to implement a wellness and injury prevention program within their company. While one cannot force a change in attitudes of some employers, their needs to be a clear cost-benefit analysis in order to recruit any employer to participate.

Abrams (2010) provides suggestions to improve the chance that employers incorporate wellness programs in their workplaces. The provided suggestions include meeting the needs of both the employees and employer (this could include incentives), to have a solid plan for implementation (including goals), to promote positive group-level involvement of the employees, and also to have a role for supervisors in the program.

There are no well-controlled randomized trials that support positive outcomes of any type of employee program. However, a few studies have used other designs to investigate the general effectiveness of both employee wellness and injury prevention programs. In an article by Mills, Kessler, Cooper, and Sullivan (2007), the impact of a health promotion program was evaluated within a single company of 519 full-time employees. These employees were compared to a control group sample of 1679 employees from various other companies. Each participant
received a survey at baseline and at a 12-month post-test period. The assessments at baseline and post-test included a Health-Risk Appraisal (HRA) and the work performance section of the World Health Organization health and work performance questionnaire (WHO-HPQ). These instruments aim to measure the amount of health risks that an individual possesses and also their attitudes about their job performance, including the amount of days missed from work. The intervention group received wellness reports based on their individual responses to the assessments conducted at baseline. Topics in the wellness report could include the importance of sleep, risks associated with alcohol or smoking, and diet and exercise. The intervention group was also provided access to health resources via internet, as well as periodic wellness workshops.

A comparison of the control and intervention groups at the 12-month mark revealed a difference. Each of the following three assessment areas was found to be statistically significant. In the intervention group, the mean number of health risk factors was reduced by almost one-half of a health factor (0.45) more than the control group from pre-test to post-test. The intervention group also scored almost one point higher (0.79) than the control group at post-test for the WHO-HPQ. The study also revealed that the intervention group experienced on average 0.36 less days of absenteeism from pre-test to post-test, but this was a result of increased absenteeism in the control group and not a reduction in the intervention group. This study shows that a simple program that provides information to employees may even be beneficial. Limitations of the study include that the results were based on employee self-report. Also, randomization was not used. The response rate dropped significantly from baseline to post-test as well in both groups, from 519 to 266 in the intervention group and from 1679 to 1242 in the control group.

In a different study, Hodges et al. (2004) described results from a wellness program implemented to employees throughout the city of Little Rock, Arkansas. The program included
components such as required immunizations, drug screenings, annual physicals, educational classes, information of exercise/diet, and other wellness occupations. After the first year of the three-year program, the city’s total worker’s compensation costs were reduced to $330,000 from $637,000 before program implementation (nearly a 50% decrease). In subsequent years, there were further reductions in worker’s compensation costs. After the second year, cost was reduced to $223,000, a nearly 33% decrease from the first year of program implementation. In the third year, the total cost was $215,000, which was a reduction of about 4% from the previous year. This study was one of the first employee wellness programs established and used throughout an entire municipality. This program resulted in healthier employees while significantly reducing worker’s compensation costs to the city. This article provides support for programming; however, the study did not include a control group in its design and only recorded results without any statistical tests.

A recent study by Gartley and Prosser (2011) examined the effects of a simple pre-work stretching program on incidence of injury within two different companies. The job tasks performed at the two companies (one company was a beverage distribution company and the other a tin mill) involve performing moderate lifting tasks for a full 8-hour workday. A pretest-posttest design was implemented that recorded the total number of work-related musculoskeletal injuries for a three month period before implementation of the intervention program and then the three month period during program implementation. Of the total amount of employees from each company eligible to participate (785 at pre-test and 1,248 at post-test), only 79 employees participated in the voluntary intervention group. The results show that there was a significant decrease in injury rate associated with the stretching program. 51 out of 785 employees, or 6.5% of employees in the control group sustained injuries within the pre-test period, and 106 out of
1,248, or 8.5% of employees in the control group sustained injuries during the post-test period. In the intervention group, only 1 of the 79 employees, or 1.3%, sustained an injury during the post-test period. There are a few limitations with this study. First, the study was not randomized and participation in the intervention group was voluntary. Second, the sample of total employees from pre to post test increased from 785 to 1,248, which may have had an effect on outcomes. Also, the data focused on post test comparison of intervention and control group only, not from pre-post test of each group. No data was given on the injury rate of the intervention group at pre-test to determine whether the stretching program had any effect. This study illustrates potential benefits of injury prevention programming.

Shi (1993) describes an earlier study on the effectiveness of a back injury program implemented within four different companies. The companies include a parks and recreation department, a public works department, and two different hospitals. The study used a pre-post test design using a Health Risk Assessment (HRA) based on a model from the Centers of Disease Control. The HRA was given at pre-test, then at post-test after a one year back injury prevention program. The HRA included a fitness profile, a back pain profile (indicating frequency, location, and duration), an occupational risk factor profile, driving profile, and a psychosocial risk factor profile. A total of 205 employees from the different companies participated in the intervention group. A control group was also established which consisted of an unidentified number of employees from a Sheriff’s office and a county grounds department. The study does not show that the control group participated in any form of the pre and post tests, indicating that it is not a true control group. The findings of the study showed that within the intervention group, there was a significant decrease in the amount of annual back pain experienced. There was a significant increase in the amount of individuals reporting “no back pain” as well. The number
of individuals who experienced daily or monthly back pain decreased; however, these were not significant differences from pre-test. Each participant was categorized at pre-test into high, medium, or low risk groups for back pain. At post-test, the mean amount of risk factors identified by the HRA within the high risk group significantly decreased. The medium and low risk groups did not experience significant increases or decreases. The cost-effectiveness of the program was explored as well. The medical claim costs of both the control and intervention groups were projected using total costs from previous years. These costs take into account the amount of sick days taken in both groups, the cost of implementing the program, and also the potential savings in medical claim costs. A total of $161,108 was projected to be saved from implementation of the back injury program. Limitations in the study include a lack of matching of the intervention and control groups. While descriptive statistics did not find any significant difference between the two groups prior to programming, the job tasks of the groups may be significantly different. Within the study, they did not provide any statistics on comparison of the two groups. Instead, they used the control group only in determining the cost-effectiveness of the program. Also, the assessment tool measured subjective information only, so each individual’s responses may not be entirely valid. An additional limitation is the absence of randomization.

While current employee wellness programs may already provide benefits to the workforce, employees would benefit even more from involvement of occupational therapy. Letts (2009) stressed that occupational therapy is not an explicit component of many current workplace programs. Occupational therapists possess a skill set that could greatly benefit workplace injury prevention programs. Letts (2009, p.175) explains:
Occupational therapists can implement strategies in partnership with workers and employers to promote health of aging workers, including job redesign, organizational restructuring, and health promotion initiatives that include wellness and physical activity programs as well as ergonomics, maintenance of abilities, and promoting ongoing interest in work.

According to King and Olson (2009), the components of programs headed by occupational therapists could include assessment of health risks, hazard checklists, lifestyle improvement training and education, suggestions for safe work habits, and fitness programs.

The literature review suggests that there is a need to address employee injuries. Some companies have integrated programs into their workforce to reduce the potential for injury, but most are voluntary. The programs mainly consist of health screening and management of health risks. While these are very important contributions to a wellness program, in order to produce and maintain productive and injury-free workers, additional concepts dealing with specific injury prevention need to be added. Many companies, especially those with high rates of worker’s compensation, need to address safety and injury prevention. In order to have the most efficient and productive workers, employers need to seek assistance in job analysis, safe material handling, and ergonomics. There is much support for improvement of employee performance and reduction of injury when the work environment is safe. Additional needs include wellness initiatives such as exercise, diet, stress management, and overall psychological well-being. Any company can benefit from a program that addresses these issues, and companies should encourage healthy habits in their employees.

All of these components are potential needs for programming; however, a program that addresses all of these issues would be very complex and lengthy. Therefore, the major issue to
be addressed is employee safety and injury prevention. Within this issue certain concepts of wellness are addressed as well. These include physical strength and stamina to complete job tasks, reduction in health risks factors, and motivation for successful job performance.

The largest obstacle in the success of programming for employees is participation. It was earlier explained that some employers do not feel that programming in this area is appropriate or beneficial. With a lack of evidence-based research and randomized control trials, it is difficult to substantiate that it can and most likely will improve employee productivity and reduce injuries. If an employer already offers wellness programming for its employees, there is normally a lack of employee participation. Inclusion of incentives is an easy way to boost participation rates. Also, an explanation of the benefits of employee injury prevention programs to the employer can help to recruit participants. The benefits can be twofold. Employees can live healthier, longer lives and maintain employment; while the employer reduces costs in workers compensation maintains productive employees. The concepts discussed within an injury prevention program may carry over into the home as well, providing even more benefit for the employee.

F. Occupation-based Programming

As stated within the review of literature, employees may experience musculoskeletal pain and psychological stress. In addition, health risk factors may lead to loss of work time and increases in worker’s compensation costs for the employer. Currently, employee wellness programs focus on physical health and wellness. Many programs do not address issues such as proper lifting and material handling techniques for safety and injury prevention. Also, issues in psychological health and stress management are often overlooked by these programs, and should be addressed because they may contribute to workplace injury.
Current programs for employees lack explicit occupational therapy involvement. Many programs that have been implemented are facilitated by a nurse. Occupational therapy has a major role in work injury prevention. Gainer (2008) stated “Occupational therapy can complete an ergonomic task analysis to help adjust the job to prevent injuries using a combination of job demands analysis, discomfort and comfort scale, upper extremity evaluation, postural evaluation, and seated work posture” (p. 6). The BLUE Collar program will be occupation-based because it will involve active participation of employees within the workplace. The program will include interactive components that are collaborative approaches between the employee, the employer, and the occupational therapist to find ways to be more productive and safe at the same time. Employees, as well as the employer, will find the programming meaningful because it involves analysis of current daily job tasks. The occupational therapist will make recommendations for the environment and also modify employee techniques in order to complete these job tasks in a safer way. Within the United States, there is a large emphasis on work and productivity. Many individuals spend 40 hours a week at their place of employment, so conducting programming at the workplace is ideal for convenience. Goetzel and Ozminkowski (2008) explain that the workplace provides a useful setting for the introduction of wellness programs, especially since employees generally work together in the same geographic site towards a common goal. The workplace is a naturalistic setting as well where employees can be comfortable and true occupation can be observed.

Further justification for involvement in occupational therapy in workplace injury prevention is evidences in the Occupational Therapy Practice Framework (OTPF). OTPF (American Occupational Therapy Association, 2008) addresses issues that involve wellness within the area of occupation titled Instrumental Activities of Daily Living. Within this section,
exercise, nutrition, and risks to health are mentioned under the category of health management and maintenance. Another area of occupation within OTPF is titled Work. Job performance, which can be improved through proactive wellness and injury prevention programs, is mentioned as a component of the Work area of occupation. Additionally, a program in employee wellness and injury prevention can help individuals to obtain or further develop their performance skills in both areas of motor and process skills. In OTPF, Table 10 refers to outcomes from participation in occupation. In this table, health and wellness is identified as a major outcome. Within this outcome, it is stated that “wellness is more than lack of disease symptoms; it is a state of mental and physical balance and fitness.” (American Occupational Therapy Association, 2008).

The overall anticipated result of this type of programming would be improved employee safety, productivity, and motivation as well as a reduction of costs to the employer. The skills gained from the program are primarily meant to be used within the workplace, but can be generalized for use in the home as well.

G. Models of Practice and Principles of Programming

The BLUE Collar program will utilize two different occupational therapy models of practice in its programming. The first of which is the Role Acquisition Model of Practice (Mosey, 1986, chap. 26). This model incorporates four areas of occupation, the most important of which in this program is the category of work. The other areas are activities of daily living, school, and play/recreation/leisure. These are important as well, but not the focus of programming. However, the components of programming can be carried over into those other areas. Intervention in the Role Acquisition Model of Practice focuses on practice and application of specific task and interpersonal skills. The model utilizes education as a method to allow the client to improve performance and promote skill development. Intervention is also based on the
individual’s expected environment, which in this case would be their workplace. Within this model, it is assumed that the individual is influenced by their environment.

The second model used is the Biomechanical Model of Practice (Flinn, Jackson, Gray, & Zemke, 2008). The Biomechanical model will be utilized during job analysis to improve techniques in safe material handling. By using principles of the Biomechanical model, participants will reduce the risk of musculoskeletal injury. Additionally, the Biomechanical model can assist in identifying performance skills involving strength and endurance. This is useful for employees to understand their limitations and avoid musculoskeletal injury.

The principles of programming center on an occupation-based approach to improve worker performance and health. Components of the two models of practice are reflected in the principles as well. The principles include:

1) Prevention of workplace injury will be the focus of programming. Utilizing principles of the Biomechanical model of practice will ensure that risk for injury is minimized.

2) Principles of biomechanics will be used to assess and diagnose the risk for back injury. Additionally, they will be used to provide suggestions to reduce the risk of back injury.

3) Principles of biomechanics will be used to assess and diagnose the risk for repetitive motion injuries of the upper extremity. Additionally, they will be used to provide suggestions to reduce the risk repetitive motion injuries.

4) Programming will include acquisition and refinement of Mosey’s identified task and interpersonal skills. Targeted task skills include having adequate posture for tasks, physical strength and endurance, rate of performance, and the use of tools and material. Targeted interpersonal skills include expressing ideas and feelings, participating in cooperative and competitive situations, and taking appropriate group roles.
5) Occupations that involve job tasks will be used in order to provide meaningful intervention.

6) All employees will be encouraged to attend sessions and be active participants. Multiple strategies for teaching and learning will be used.

7) A safe environment will be used for all program sessions, either at the Cleveland Clinic RTW Service Department or at the workplace. While at the naturalistic setting of the workplace, safety will be important.

8) Interviews, surveys, and ongoing formative evaluation methods will be used in order to facilitate participant input on program goals and delivery methods.

H. Governmental and International Mandates

Justification of the programming that emphasizes employee wellness and injury prevention is given by the World Health Organization (2013) when the Global Plan of Action for Worker’s Health (GPA) was established in 2007. The plan incorporates objectives including:

- To establish basic levels of health protection at all workplaces, to ensure access of all workers to preventative health services and link occupational health to primary health care, to improve the knowledge base for action on protecting and promoting the health of workers, and to establish linkages between health and work.”

This aligns with the primary goal of the BLUE Collar Program, which helps to create that link between health and work. The importance of an employee wellness program is described in terms of primary, secondary, and tertiary prevention by Goetzel and Ozminkowski (2008). They describe the use of primary prevention in an employee wellness program by providing exercise, diet, stress management, and addressing alcohol consumption. Secondary prevention is addressed in individuals that may be at risk already due to lifestyle choices such as smoking and
poor nutrition. Tertiary prevention can also be addressed by an employee wellness program for individuals who have diseases such as asthma or depression.

Healthy People 2020, a national health initiative, addresses issues regarding workplace safety and wellness among employees. A major topic in Healthy People 2020 (U.S. Department of Health and Human Services, 2012) is occupational safety and health, which includes the goal to “Promote the health and safety of people at work through prevention and early intervention.” This major initiative includes the need to prevent diseases, injuries, and deaths in the workplace. The goal of the BLUE Collar program coincides with this initiative because it aims to provide methods and training for prevention of injuries, and to improve health and wellness of the working population.

According to the Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health (NIOSH) (2011), “The mission of NIOSH is to generate new knowledge in the field of occupational safety and health and to transfer that knowledge into practice for the betterment of workers.” This national organization’s mission matches the goal of the BLUE collar program as well. Health and safety at the workplace is the basis for programming. The BLUE Collar program aims to address both national and international health initiatives.

III. Objectives

A. Program Goal

The goal of the BLUE Collar (Better Lifestyle and Utilizing wellness for Employees) Program, provided by The Cleveland Clinic Return to Work Services Department, is to increase overall health and wellness, as well as reduce potential for work injuries among employees.
B. Program Objectives

1) At conclusion of the program, 85% of the participants will demonstrate improved body mechanics and posture when performing a job task (as measured by the Rapid Entire Body Assessment).

2) At conclusion of the program, 85% of the participants will improve score on wellness and prevention questionnaire, demonstrating improved knowledge and education on health initiatives.

3) By the 4th week of the program, 85% of the participants will identify, in writing, at least one area of wellness and prevention and one method to improve their own health.

4) At conclusion of the program, 85% of the participants will have implemented at least 75% of the recommended worksite environmental and behavioral modifications.

(Optional depending upon content of program)

IV. Marketing and Recruitment

A. Marketing Plan

Those involved in marketing the BLUE Collar Program include staff members involved with programming within the Cleveland Clinic RTW Department. Also involved will be the Ohio Bureau of Worker’s Compensation. The marketing plan will target local area employers and unions within northeast Ohio. By targeting unions, program information can be spread to employees. When negotiating contracts between unions and employers, the BLUE Collar program could become a mandated requirement. Marketing strategies include flyers by mail to local companies and presentations to local area unions.

A flyer will be mailed to local area companies and corporate offices within the area (See Appendix F). Accompanying the flyer will be a formal letter further explaining the intent of the
program (See Appendix G). The flyer will be approved by the Cleveland Clinic in order to include their name and logo. It will be important that mailed flyers be printed in color to appear attractive to companies. The flyer will contain only the most important information about the program and its associated benefits. Information regarding whom to contact if interested in the program will be present on the flyer as well. If an employer is unsure whether to participate in the program, the employer can request additional information. In this case, a pamphlet containing an outline of the major aspects of each program session will be sent to the employer (See Appendix H). The pamphlet will not be sent to employers unless requested in order to reduce costs. Additional information will also be available by contacting the program facilitators displayed on the flyer.

Flyers will be sent out two months prior to the planned start of the program to all major companies within a thirty mile radius of the Cleveland Clinic. During the first two weeks of the program, a second set of flyers will be sent to employers again. An option to increase recruitment will be to send flyers to companies within a sixty mile radius of Cleveland Clinic by the fifth week of the program. This is important in order to cycle new participants into the program once the first program has been implemented.

Permission will be requested from the Cleveland office of the Ohio Bureau of Workers’ Compensation to display flyers. This office will provide a relevant location to recruit potential participants. Individuals who have sustained an injury may be interested in proposing that their employers participate in the BLUE Collar program.

The second method of marketing will include short presentations at local area union headquarters. The presentations will be given, after permission is obtained, during union meetings in order to reach as many union employee members as possible. The presentations will
provide information to employees that are members of a union about the potential benefits of the program such as safer working environments and lifting techniques. Additionally, specific additional program components, including the worksite analysis, will be explained. Examples of worksite analyses will be given as well in order to provide a clearer picture of how programming will be individualized to their specific companies and job tasks. Employees can take this information and relay it to employers. Also, the union can urge companies that employ union workers to participate in the BLUE Collar program. By including unions in the recruitment process, another persuasive group can make a case for improved workplace safety and health promotion.

Word of mouth from employers who have participated in the program will also contribute to recruitment. Although some employers may be reluctant to share their experience with other competing companies, they will be encouraged to share their experiences with others, especially if participating in the program led to positive outcomes.

B. Inclusion Criteria

Potential participants in the BLUE Collar program include local employees in northeast Ohio. Employers are the target of marketing, ultimately being the decision makers to participate in the program with their employed workers. It is important to note that supervisors and managers of the participating companies will be involved the program as well. As noted previously, employees respond to programming better if supervisors and management participate as well, indicating that their employee’s health and safety are of importance to them.

The maximum and desired number of employees for each program cycle will be 20 individuals. The program duration is nine weeks long, thus allowing for a maximum of 100 participants per year. If interest in the program is large enough, programming may be scheduled
for five days per week, then bringing the total number of participants to potentially 500 per year. A group size of twenty individuals will allow enough employees so that smaller businesses can participate in the program. Relatively larger companies will need to schedule multiple program cycles in order to allow for all of their employees to participate. However, a group of 20 will allow for some larger companies to send one entire department to participate in one program cycle. A group of twenty participants will create an environment that is small enough for all to have a chance to participate, but large enough to remain cost-effective for the employer, which will be important to mention when marketing the program.

Both male and female employees will be included in the program. Participants must be at least eighteen years of age, in accordance with laws outlined by the U.S. Department of Labor (2012) regarding hazardous jobs. Employees under the age of eighteen are not legally allowed to perform any hazardous job tasks. Participating companies must also be located within sixty miles from the Cleveland Clinic. All participants must be willing to actively participate in hands-on injury prevention training. If the company chooses to incorporate an on-site job analysis, participants must state in advance that they would be willing to implement and practice suggested modifications to the worksite environment, as well as individual workplace behavior modifications. All participants must also be willing to participate in classroom instruction on wellness and prevention of disease/disability. Classroom work will include group work and discussion. Participants must also be willing to be assessed by a licensed occupational therapist using observation based evaluations and implementation of behavioral and environmental worksite modifications.

Workforce statistics provided by the U.S. Department of Labor, Bureau of Labor Statistics (2013) indicated that 139,869,000 individuals are employed in the United States. Of
these employees, 73,359,000 (52%) are male and 65,705,000 (48%) are female. From these statistics, the program participants would include 10-11 males and 9-10 females. Depending on the specific demographics of each industry, this can vary. 13.6% of the United States labor force is aged 16 to 24, 66.9% are aged 25-54, and 19.5% are aged 55 and older. Based on these statistics, participants in this program are expected to include 3 individuals between the ages of 16 to 24 (only ages 18-24 will be allowed to participate), 13 individuals aged between 25 and 54, and 4 individuals aged 55 or older. Statistics show that the program will consist of 16 Caucasian individuals, three African American individuals, and one individual of Asian ethnicity.

C. Additional Methods for Recruitment

Participants will begin to be recruited two months prior to implementation of the first program cycle. The program will be at least nine weeks long, but may be longer depending upon request of the company. Since multiple companies may be participating in the program at the same time frame (on different days of the week), it will be important to continuously to recruit participants. The program can accommodate a total of 20 employees at a time. If a larger company wishes to participate, they may send a few employees at a time, and possibly schedule for multiple days per week.

Flyers will be sent to area employers again during the fifth week of the program, and flyers will be placed at the Cleveland Bureau of Workers’ Compensation. Within the two month time period before program implementation, presentations will be given by the occupational therapist facilitating the program at local union meetings. Employers will schedule a nine-week time period after work hours to complete the program with the occupational therapist. If interest is high, a waiting list will be created for employers that wish to participate in the program.
V. Programming

A. Foundation for Program

Each participant will be expected to attend all seven sessions they are assigned to. The program consists of nine total sessions; however, the group will be split in sessions five through eight. Half of the group will participate in two of these sessions, while the other half will attend the other two. It will be the shared responsibility of the employer and the employee to ensure attendance. Each session will be no more than two hours long. Employers will be encouraged to provide compensation to employees for attending the program, especially since the program will be held after work hours in the evening. Employers may elect to schedule programming during daytime work hours if it is feasible, ensuring that employees are not taking extra time out of their day for a work-related function. Additionally, providing employees with incentives for participation allows them to understand that the employer is serious about their safety and willing to compensate them for their added time. Attendance at each session is important for employees to practice injury prevention methods and learn wellness methods for improved health. Program participants will sign in at the beginning of each session in order to ensure compliance with the program (See Appendix I). Each participant will agree to be observed by the licensed occupational therapist using the REBA assessment at the start and end of the program. They will also agree to participate in health and wellness exercises. Additionally, when a job task analysis is performed, participants will agree to be observed by the occupational therapist at conclusion of the program regarding the number of implemented worksite behavioral and environmental modifications made.

The components of the program complement the principles in the Role Acquisition model of practice (Mosey, 1986, Chapter 26). The Role Acquisition Model classifies “work” as a major
activity of daily living. The BLUE Collar program deals with work performance, which is a specific component of the work classification. The BLUE Collar program will target task and interpersonal skills in relation to work, as recommended by the Role Acquisition Model of Practice. The target skills include having adequate posture for tasks, physical strength and endurance, rate of performance, the use of tools and material, expressing ideas and feelings with other employees and supervisors within work situations, participating in cooperative situations within the work environment, and taking appropriate group roles to accomplish job tasks. The Role Acquisition Model of Practice is practical in wellness programming. Improving upon one’s health will improve performance in the roles one possesses. Optimal health is the overall goal of a wellness program, making it easier to balance the different roles associated with activities of daily living, school, work, and play/recreation/leisure. Flinn et al. (2008) stated that principles of the biomechanical model of practice can be used to prevent musculoskeletal conditions, including back injury and cumulative stress trauma. One component of the BLUE Collar program goal aims to prevent musculoskeletal injury.

The goal of the program incorporates principles from both of these models of practice through implementation of behavioral and environmental modifications. Specific learning principles from the Role Acquisition model of practice that will be used within programming include maintaining attention and perception to influence learning, maintaining motivation for learning, understanding the reasoning for learning injury prevention technique, encouraging active participation, using imitation of models (the occupational therapist), incorporating repetition and practice of injury prevention techniques, and understanding the link between the learned material and application of it to job tasks.
B. Program Assessments

Multiple assessment measures will be used throughout the program. The first assessment will be the Rapid Entire Body Assessment (REBA) by Hignett and McAtamney (2000) (See Appendix J). This assessment is a direct, structured observation of a client posture while completing a job task. Unlike other postural loading assessments such as the Ovako Working posture Analysis System (OWAS), the REBA can be generalized to many different industries, including manufacturing, electrical work, and health care. The REBA is meant to provide subjective feedback to an individual on their risk for injury while handling materials. According to Hignett and McAtamney (2000), the REBA was developed to provide an analysis of posture that is sensitive to many different musculoskeletal risks. The REBA analyzes each major joint of the body separately and provides scores for each. The REBA generates a score that classifies the perceived risk of injury involved with a job task. These classifications range from a score of 1 indicating a negligible risk for injury, to a score of 11+ indicating very high risk for injury. The assessment examines each major joint of the body. These include neck position, trunk position, and leg position. For example, when observing the position of the trunk, if the trunk is at 0° when performing the job task, a score of 1 is recorded, if the trunk is in extension or in 0-20° of flexion a score of 2 is given, if the is in 20-60° of flexion a score if 3 is given, and if the trunk is in 60+° of flexion, a maximum score of 4 is given. Additionally, shoulder position, lower arm position, and wrist position are considered. The score is also influenced by the specific material being handled. As the weight of the material is increased, more risk will be perceived. Another factor that influences the score is whether there are hand-holds available and the type of grip (e.g., power grip) used. The movement associated with the material handling is taken into account (e.g., twisting, turning) and lastly, if the job task is repeated more than four times in one
minute or requires a large change in posture, then the overall risk score is increased. This assessment will be implemented at the worksite to provide a naturalistic environment and ratings sensitive to each employee’s specific job tasks.

Another assessment tool used will be a wellness questionnaire (See Appendix K). The participants will take this short assessment during the third session of programming. This questionnaire is meant to give individuals a snapshot picture of their health and wellness. From the assessment, employees can determine where to focus their wellness goals and plans that they will later develop in programming. The questionnaire will address basic wellness topics such as smoking cessation, weight management, and diet/exercise. The questionnaire is meant to be used as an awareness tool. Some participants may not realize that they are making unhealthy choices throughout their day, and the questions may help to reveal that.

The last assessment tool will be a checklist of worksite behavior and environment modifications (See Appendix L). In the fifth and sixth weeks of the program, the occupational therapist will visit the worksite and perform a jobsite analysis for each job task. The occupational therapist will provide recommendations to be implemented based on the observed employee’s performance and the surrounding worksite environment. A list of the recommendations will be made. Then in the seventh and eighth week of the program, the occupational therapist will observe the employees performing job tasks once again and record the number of implemented modifications based on the recommendations made on the form.

C. Progression of the Program

The worksite will be used as the setting for the program. It is important that all sessions are held at the worksite so that the employees are in a naturalistic and comfortable setting. Some components of the program address the application of principles to the worksite, which will
require the participants to perform normal job tasks and have their performance analyzed. Prior to session one, the occupational therapist will coordinate with the employer to select an area of the worksite that will be conducive to meet. The progression of the program will begin with assessment, and then continue with lecture, group work, and discussion. Participants will be expected to actively participate in hands-on exercises throughout the program. The program will end with a reassessment of the items evaluated in the early weeks of programming.

D. Session One of Intervention Program

Participants will sign in at the beginning of session one. The session will begin with an introduction of the occupational therapist, his or her background, and the experience that they have in the area of providing work services. Once the introduction is finished, a brief explanation of the program will be given. The occupational therapist will then discuss the purpose, the goal, and the individual objectives associated with the program. Each participant will acknowledge and understand the purpose of the program prior to implementation of any piece of programming. In order to obtain understanding, each participant will sign an acknowledgement and waiver form for liability reasons (See Appendix M). The participants will need to take the programming seriously in order for it to be effective, so it is important to have the form signed.

The participants will then discuss their work roles, job tasks, and the entire work environment as they see it. Through casual conversation, the occupational therapist can get a feel for the attitudes of workers and get to know them. This is important because it helps to build a rapport with the clients. In most cases, it can be expected that employees would not want to participate in extra training outside of their normal work hours. By gaining rapport with participants, it makes it easier for them to adjust to abnormal hours. Additionally, building
rapport will allow for more participation in discussions and group occupations. Using questions to promote discussion and conversation (See Appendix N), the occupational therapist will gain information about the work that participants do.

During the first session, as well as all subsequent sessions, it will be important for the employers and supervisors to be present and participating as well. This will hopefully improve the meaningfulness of the intervention to the employees. As is earlier discussed, the involvement of the employer is critical to successful programming. If the employees notice that the employer cares about their health and well-being, they should be more motivated to work and be more productive, happier employees.

The main focus of session one is to obtain a mutual understanding between the occupational therapist and the workers. The workers are to understand the purpose of programming and the importance of it. The occupational therapist is to understand the work environment and job tasks of the workers. In order to do this, the occupational therapist will then be taken on a tour of the worksite by the employees, pointing out all equipment and materials used for job tasks. If possible, each employee can wait in their department or the area where their job tasks are performed, then give a short summary of their jobs and what is done there. This will give the occupational therapist a quick overview of the worksite, and provide insight to what type of product or service is provided at the facility. The occupational therapist should take notes on the Initial Worksite Tour and Introduction Form while on the tour for later use in programming (See Appendix O).

During the tour, the occupational therapist can discuss with employees the general description of the job tasks performed, how much supervision is provided or required, the specific entitlements that workers receive, including things such as amount of time set aside for
breaks, length of shifts, and allowed time off. Additionally, any union influence on the workplace may be discussed as well. In order to receive reliable and valid information, the employer will not participate in work area tours. Some employees may be fearful to speak truthfully in the presence of supervisors. Participants will be assured that the information they provide is strictly confidential.

At conclusion of the tour, employees will be dismissed to go home. The occupational therapist will then speak with the employer and supervisors to discuss the possible components of programming in addition to the general knowledge that the program contains. The possibility of additional worksite job analyses will be discussed, depending upon what the employer wishes to have. Sessions five through eight are reserved for jobsite and ergonomic evaluations. Due to time constraints, each participant will have a limited amount of time to be evaluated, so it is up to the employer if they would like to schedule extra sessions for more in-depth evaluations. Additionally, methods of increasing employee participation will be addressed as well. Employers will be encouraged to provide some type of incentive to employees in order to facilitate active participation. The most fitting incentive would be a decrease in insurance health premiums for adhering to and participating in programming. Compensation in the form of time off for attending programming may be the choice of some employers. Possible other rewards include monetary compensation, gift cards, or perhaps a lottery, as previously discussed by Haisley et al. (2012). This type of strategy may be a more cost-effective solution to employers with limited funds for programming.

E. Session Two of Intervention Program

Session two will focus on injury prevention in regards to material handling. As previously stated, low back injuries have been one of the oldest workplace injuries (Wax, 1994).
Kahn (2004) explained that back injuries are commonly associated with improper handling of materials and improper body mechanics. Not only can back injuries occur, but improper body mechanics can contribute to injuries of the shoulder or other body parts.

The occupational therapist will explain the procedure for the session, stating that each participant will be observed while performing their job task, and then be given feedback on their performance. The REBA will be used to assess the body mechanics while performing job tasks. Initial scores for the REBA will be established using guidelines provided by Hignett and McAtamney (2000) for each employee. Each employee will be individually evaluated by the occupational therapist using the assessment while they perform their normal job tasks. The occupational therapist will observe their performance using the REBA. Scores will be recorded by the occupational therapist and used to tailor future intervention components to meet the specific needs of the participants. If permission is granted by the participants, the occupational therapist will also take photographs of them performing their job tasks. This will help the occupational therapist to determine the most appropriate score on the REBA.

Once job tasks are performed and photographs taken, the participants will regroup with the occupational therapist for an instructional session. The occupational therapist will instruct the participants in basic anatomy of the spine and proper lifting techniques. This is an important part of programming because injuries due to poor lifting techniques are common. Participants will learn basic anatomy of the spine from the occupational therapist, using the model as a visual guide. The occupational therapist will show participants the vertebrae, discs, and what types of motions contribute to injuries such as bulging or herniated discs. Participants will be able to follow along by reading the definitions of each part of the spine on the first page of the Anatomy/Biomechanics/Lifting Packet. (See Appendix P). Participants will watch a slideshow,
while following along with handouts of pictures demonstrating proper form for lifting. The education on proper lifting and biomechanics follow procedure commonly provided by Michael Milicia, OT/L at Cleveland Clinic RTW for injured workers.

The first component of the slideshow is the spine terminology on the first page of handouts. The occupational therapist will explain the general anatomy of the spine and how the vertebrae move during activity. Explanation will include how vertebrae stack on top of each other and how discs are seated in between each vertebra. Movement occurs at the level of the disc, with small muscles in between each vertebra assisting. The occupational therapist will explain how there are two major parts to the disc, the annulus fibrosus and the nucleus pulposus. The annulus fibrosis is the tougher outer layer of the disc, cushioning the inner portion, the nucleus pulposus (Gillard, 2012).

Next, the occupational therapist will discuss different pathology of the spine related to improper body mechanics. Peter Ullrich (2013) describes the issues of herniated discs and degenerative discs. A herniated disc puts pressure onto the nerve roots exiting the spinal column, thus causing pain along the nerve pathway (usually down leg). A herniated disc involves the nucleus pulposus protruding out the disc, while a bulging disc involves only the annulus fibrosus. Degenerated discs are generally formed over time, much like arthritis. Arthritis can accompany a degenerative disc as well.

After any anatomy questions are answered, the occupational therapist will move on to the next page of the handout, illustrating proper body mechanics while lifting objects. The first lift is a lift from floor to waist. As illustrated in the pictures, proper lifting involves first keeping the load as close to the body as possible. To assume the correct position, widen your stance to maintain balance. By widening your stance, you not only improve balance and increase the base
of support, but it allows for more room to lower the load when you bend your knees. By having a wider stance, the load can stay closer to the body, reducing strain and stress on the shoulder and arm. Bend at the knees to reach the load, keeping your arms as straight as possible. Grasp the load, and while maintaining normal curves of the back, lift with your legs by extending the knees. Your spine should remain in the same position and curvature throughout the entire lift. Once standing up straight, use your forearms for bring the load up to your waist. This position then allows you to ambulate and transfer the material to a different location if needed.

When lowering the load, once again widen your stance. Then lower your arms so the load is below your waist. Then squat, bending at the knees until the load reaches the ground. By lowering the arms first, less squatting is needed to reach the floor. Then release the load.

The next lift requires transferring the load to chest level. Using the lifting technique just reviewed, the load is now at waist level. In order to place the load on a shelf at this level, turn to square yourself with the surface you are transferring the load to. Walk in towards the shelf, keeping the load close to your body. This decreases the stress on the arms and shoulders. When retrieving the load, square your body with the shelf in the same manner. With body close to the shelf, retrieve the load and step back to pull it off of the shelf.

The third type of lift is an overhead lift. Many employees in different industries must retrieve or place objects on shelf at head level or above. In order to do this, retrieve the load from the floor as instructed in the first lift. Turn the entire body to square off with the shelf. Then raise arms simultaneously, keeping the load level to place onto the shelf. An easier way to transfer the load overhead is to place one hand underneath the load while the other stays on the handles of the load. This will recruit new muscles in the arm and result in a safer transfer. When retrieving the load, place one hand underneath the load again and pull the load off of the shelf.
Lower the load to waist level and step back from the shelf. Square yourself off with any surface that you are transferring the load to.

Each of these lifts should be demonstrated in person with the pictures in the handouts used as cues for participants to use. Once instruction is finished, each participant will then practice the different lifts using a 20 pound box. The occupational therapist will observe the participants while lifting, one at a time in groups of five, and make recommendations/cues based on their performance. Participants must demonstrate proper form in order to pass this section of the program. The occupational therapist will check-off each participant on the attendance list when they demonstrate proper form of each lift. While the occupational therapist is completing the check-off, other participants can practice lifting techniques in pairs.

When finished with the lifting techniques, the occupational therapist will discuss the benefits of proper lifting with participants. Back movements during material handling that contribute to injury will be discussed. These include bending, twisting/pivoting, and arching the back. Participants will have a chance to ask questions about the session, and then will be dismissed.

F. Session Three of Intervention Program

Of great importance to our current society is the rapidly growing rate of obesity. According to Hagan (2003), being overweight increases the risk for certain diseases such as high blood pressure, diabetes, heart disease, and joint issues, among others. Session three will deal with the importance of diet, exercise, and proper weight management. Participants will begin the session with a wellness questionnaire. This questionnaire covers many different areas of wellness, from diet and exercise to risky behavior. Many of the questions are based on a survey provided by the Pacific Coast Wellness Center (2013). The questionnaire is meant to provide
each individual with a subjective report of their own health. The questionnaires will not be
shared with one another in order to maintain privacy. Each participant will be instructed to fill
out the questionnaire and reflect on their answers. The topics discussed within the questionnaire
will be discussed at some point in programming. Participants will be told that their answers are
private and they do not have to share their answers with any others, hopefully allowing
participants to answer truthfully.

After the questionnaire is finished, participants will have a classroom-style instruction on
diet and nutrition. Each participant will be given a copy of the Nutrition and Exercise Packet
(See Appendix Q). This packet will be used periodically during the wellness portions of the
program. The packet begins with a face page upon which each participant will put their name.
Moving to the second page, each participant will be introduced to the concept of a BMI. The
occupational therapist will explain that the BMI is a classification system using the ratio of a
person’s height to weight to determine whether the person is at a healthy weight or is
overweight. Using guidelines provided by Hagan (2003) and Mayo clinic, participants will
determine their current BMI. By calculating their BMI, participants have an objective
measurement of one aspect of health.

The next pages of the Nutrition and Exercise Packet consist of descriptions of all major
food groups. The occupational therapist will go through each of these, giving examples of foods,
the benefits of each, and how much should typically be included in a person’s diet. Diet is a very
important component to weight management and participants should pay attention to this section
in order to create or maintain a more healthy life. Also, a description of the different types of
food molecules is on the page, including calories, fats, proteins, and carbohydrates. The
occupational therapist will go through this section, providing examples of our body’s uses for
each type of food molecule. Descriptions of molecules are based off of guidelines provided by
the American Medical Association (2008).

The next page of the Nutrition and Exercise Packet gives an example of a nutrition label and how to read it. The occupational therapist will discuss the components of the nutrition label with participants. Now that participants have a better understanding of the different food groups and molecules of food, they should be able to properly understand the nutrition label and the components of it. The occupational therapist will make careful note to review the importance of looking at the serving size and the amount of calories, fats, and carbohydrates present in the food. Following the nutrition label description, a few additional tips are provided in order to make healthy choices when choosing food.

As an adjunct to learning about nutrition and dieting, each person will be given instructions on how to create a personalized diet plan. The food plate provides a great visual for general balanced dieting, but people are genetically different from one another. Each person is different and requires different amounts of calories, vitamins, and exercise; each diet plan should be personalized. Additionally, everyone has different goals. Some individuals want to lose weight, while others may be trying to gain weight. One way to create a personalized plan is by using the United States Department of Agriculture (2013) Supertracker. The Supertracker provides diet needs based on size, gender, age, activity level, and goals. With this tool, each person can develop their own plan. Having it personalized may make them more apt to follow the plan.

To introduce the Supertracker, the occupational therapist will tell each participant to flip to the next page of the Nutrition and Exercise Packet. Here, a set of instructions for setting up their own Supertracker plan are given. The occupational therapist will use the computer to go
through the instructions step-by-step with the participants. The occupational therapist will create a profile so that each individual can see how the Supertracker works.

Exercise is an important component of staying healthy, and it goes hand in hand with diet. “While it’s possible to achieve some weight loss success by choosing to either diet or exercise, the best way to lose weight is doing a combination of both. To reduce body weight, a caloric deficit must be created,” says Joseph T. Ciccolo, PhD, (Everyday health, 2013). In many cases, individuals think that by exercising, they are entitled to eat more. Based on the statement by Dr. Ciccolo, this is not the case. According to Ashleigh Meyers, many individuals believe that exercise alone is enough to lose weight. In fact, exercise is only a small piece of the weight loss puzzle. Approximately 70-80% of your becoming fit is attributed to what you eat, leaving only 20-30% up to your exercise routine (personal communication, March 1, 2013). An effective exercise program should be included when striving to achieve and maintain a healthy weight.

Information on exercise, as well as a sample exercise program will is given to participants on the final pages of the Nutrition and Exercise Packet. The idea is to provide insight to starting an exercise program, as each individual person may have different goals in mind. The occupational therapist will go through the steps to develop your own exercise plan, and then provide a list of local gyms (depending upon location of workplace). Fitworks, a local Cleveland/Akron chain of exercise facilities offers a free 7-day pass on their website (http://www.fitworks.com/fitworks/ohio-fitness-center.html). The gym also provides corporate discounts, which varies by location. Once this information is given, the occupational therapist will suggest that participants start slow if they do not already exercise. In order to increase the likelihood that participants will exercise, the occupational therapist will distribute pocket
pedometers (Sportline 340 Multi-function pedometer) so that participants can track how many steps they take per day. Based on the composition of research conducted by Tudor-Locke et al. (2011), healthy adults take about 4,000 to 18,000 steps per day. 10,000 steps should be an adequate and achievable amount of steps per day for a healthy adult to achieve. The occupational therapist will provide the suggestion that participants try for 10,000 steps per day. Distribution of the pedometers and recommendations of steps per day will conclude session three.

Session three, along with session four, include education-based programming. The information provided is meant to increase participant’s awareness of health-related issues. It is up to them to make the changes suggested and to live a healthier lifestyle.

G. Session four of Intervention Program

Session four will deal with other aspects of health and wellness that relate and may potentially affect job performance and productivity. Once again, this session is meant to be informational and increase awareness. By increasing awareness, the potential for behavior changes increases. The focus of session four is on maintaining a healthy body in respect to disease prevention and stress reduction.

Linking the material in session three to session four, a change in diet and exercise can have great health benefits and reduce the potential for diseases and issues such as high blood pressure, cardiovascular disease, stroke, diabetes, certain types of cancer, and many more (MayoClinic, 2013). Not only does it reduce the potential for these conditions, but many individuals report that exercise and healthy eating cause them to “feel better” overall, in terms of energy and reducing stress levels.
All of the previous stated conditions are possibilities, and some people are predisposed to them. It is important for all people to determine whether there are genetically predisposed to certain conditions and whether their daily behaviors may contribute to them. In order to determine this, the Healthy Body Packet (See Appendix R) will be given out to participants. This packet contains blank charts and tables where an individual can fill in their own personal health information. It is a detailed health record that individuals can also use to provide information to health professionals. It can also be used to make health-related choices and changes.

Page one of the packet is a face page. This can be used to conceal health information if participants do not wish to share. A health record form begins on page two. Participants will be urged to complete this form on their own time, in order to determine whether they are predisposed to certain conditions. The final portion of this section contains a chart with information that was provided by the American Medical Association (2008). This chart provides medical check-up recommendations for adults, including the “what” and “when” to have checked. This chart is meant to inform the participants of a simple prevention strategy for illness and disease, which is just to receive regular check-ups and exams. Following these pages, a brief description geared toward providing resources for cessation of smoking and alcohol use will be discussed. Many participants who smoke or drink alcohol may not want to be lectured about the dangers of their habit, so this section is purposefully brief. By providing obtainable resources for quitting their habit, the programming increases the likelihood that they may actually quit.

Next, the topic of stress will be discussed. Stress is an everyday experience for everyone. It is important that employees become aware of their stress levels and sources of stress. The next pages of the packet include information on stress. First is a page that will be reviewed by the
occupational therapist with the participants. This page provides common sources of stress, how stress affects us, and some common methods of coping with stress. Following that, a stress quiz is provided. The quiz is based on a survey made by United Healthcare (2012). The quiz is not meant to give an idea of how much stress you are experiencing; rather it is to help determine how stress can affect one’s health and whether one possess the skills necessary to maintain a healthy stress level. Using this information, participants can potentially see what areas are most difficult for them and concentrate on changing them. The occupational therapist will read the directions of the quiz and each participant will take it. Then, the occupational therapist will prompt the group for a discussion about stress. Participants will have the opportunity to share causes of stress and how they cope with it. By conducting a group discussion, participants may find new ways to cope with stress. The occupational therapist will list the sources and coping mechanisms of stress on a PowerPoint slide so that all participants can see. If participants wish to have a copy of the slide, they can provide an e-mail address so the occupational therapist can forward it.

Finally, session four will conclude with a mid-term program evaluation (See Appendix S). This evaluation will ask for the participants’ feedback on many different areas of programming. They will be asked whether they feel each section so far is beneficial to them, why they feel this way, and what changes could be made to improve programming.

I. Sessions Five and Six of Intervention Program

Sessions five and six will be similar in nature. During session five, ten of the employee participants will be conducting normal work tasks. The session will involve a jobsite and work analysis from the perspective of the occupational therapist. Occupational therapists possess the knowledge to perform a job analysis. According to Rice and Luster (2008), “A job analysis is a systematic evaluation of the job that identifies its physical, cognitive, social, and psychological
requirements. Conducting a job analysis entails going to the job site, observing workers performing their tasks, measuring equipment and equipment placement, and interviewing those who perform the job and their supervisors”. The evaluation will consist of the employees performing their normal job tasks.

While the employee is performing their daily job tasks, his or her typical workplace practices will be observed during this session as well. During observation, the occupational therapist will create a list of possible changes to individual workplace behaviors and the way that employees interact with their environment using the Worksite Environmental and Behavioral Checklist. The occupational therapist will spend approximately 10 minutes observing each employee and making recommendations on the way they perform job tasks, as well as the environment that they work in. The occupational therapist will then make note of the recommended changes on the form. The form will be used again in the seventh session.

Although they have already finished a work-related assessment while completing the REBA, it will be important for the occupational therapist to observe worksite behaviors separately to account for any additional factors that may contribute to injury that the REBA is not sensitive to. Additionally, the REBA does not make the participant aware of any environmental modifications needed to improve performance and reduce potential for injury.

Session six will be a repeat of session five. This session will consist of the same programming, only with the other ten employees that did not attend during session five. By the end of session six, all employees participating in the program will have been observed and been provided recommendations for changes in the environment and their work behaviors.
J. Sessions Seven and Eight of Intervention Program

Session seven and eight, similarly to sessions five and six, will require ten employees to participate in one session, and the other ten in the other. The employees that participated in session five will participate in session seven, and those that participated in session six will participate in session eight.

Session seven will follow the same basic protocol as session five, with the occupational therapist observing the employees performing their normal job tasks. Each participant will be observed for ten minutes and then the occupational therapist will comment on their performance. The occupational therapist will check-off all behavioral and environmental modifications that were made from the previously suggested ones on the form. Environmental modifications that consist of the purchasing of additional equipment will not be counted, as this should be up to the employer to provide and should not count against the participants. These modifications, however, will be reiterated to the employer, along with an explanation of why they are important and may allow for less risk of injury.

K. Session Nine of Intervention Program

Session nine of the program will be a re-evaluation of employees using the REBA. The REBA was first introduced to employees in session two. Session two involved an observation and scoring of the REBA for each employee as they performed their normal job tasks. The REBA provided a score for participants to determine whether they are performing their job tasks in a safe manner, or if they are at risk for injury depending upon their positioning.

In this session, the participants will be re-evaluated by the occupational therapist using the REBA. The score will be compared to their initial REBA score from session two, and participants will be able to see whether they have adopted any safer habits since the beginning of
the program. They will be able to tell if according to the REBA, they are performing their job tasks in a manner that has less risk for injury. While individual REBA evaluations are being completed, the other participants will complete the wellness questionnaire that was originally distributed in session three. The participants will be able to see whether they feel that they are implementing any new wellness ideas or changing any behaviors.

Once each participant has been re-evaluated by the REBA, and their scores reviewed, they will sit in for a short presentation. The presentation will consist of a previously injured employee providing a testimonial on using safe work practices. Since the program is provided through Cleveland Clinic, the occupational therapist will recruit participants from their work conditioning program to provide a testimonial. The individual providing the testimonial will talk about their career, the injury that they sustained, and their rehabilitation process. Of particular importance in the testimonial will be any specific changes that could have been made to prevent the injuries. If the individual feels that their injury was avoidable, they should aim to explain what they could have done to prevent it. Participants will have a chance to ask questions and learn from the employee’s testimonial.

Session nine is the final session of the program. The session will end with the final evaluation of programming. This will be completed by all participants. The evaluation is the same as the mid-term evaluation, except for the final question that will be answered as well. Additionally, the employer will fill out a final evaluation form on the effectiveness of the program (See Appendix T).
VI. Budget and Staffing

A. Costs

The occupational therapist is the only staff required for this program. The occupational therapist will be contracted to run the program, on wage rather than salary. The average wage of occupational therapist in 2010 was $37.44/hour (U.S. Department of Labor, Bureau of Labor Statistics, 2012). If one program cycle occurs at a time, five program cycles will occur each year. The net pay for the occupational therapist will be $7,040.90 per year. This would increase if multiple companies are scheduled for programming simultaneously on different days of the week. The occupational therapist will be paid for 40.5 hours each program cycle, amounting to four and one half hours per week. Actual programming is only two hours per week. The additional two and one half hours of pay is for weekly program session preparation, documentation, and travel time.

The office supplies will be used in a variety of ways. First, paper will be used to develop and print flyers and recruitment letters. Stamps will be used to mail out recruitment letters. Office paper will also be needed to print and record assessment information, progress notes and discharge notes. Folders will be used to hold individual participants’ records while they are in the program. When the program is not in session, these folders will be held in a locked cabinet at the Cleveland Clinic.

The laptop computer will be used for electronic record keeping. The occupational therapist should use the computer for communications between companies. In addition, the laptop will be needed to develop and show PowerPoint presentations during sessions. In order to show the PowerPoint presentations, a portable projector and projector screen will need to be purchased. An anatomical model of the spine will be purchased as well for use in programming
during session two. The laptop, projector, screen, and spine model will accompany the occupational therapist to the worksites, so they need to be portable enough for easy transportation. Since the program is held at the company’s worksite, they may not have a laptop, projector, and screen to use for PowerPoint presentations. These items will be used in subsequent program cycles and will not need to be factored into annual program costs. In the first year of programming, the total cost will be $11,064.07. The annual program cost after the first year will be $10,002.15, since the projector, laptop computer, projector screen, and model will have been previously purchased. Pedometers, however, will be purchased for each program cycle, and is included in the annual program cost after the first year.

Overhead costs will be incurred by the company where the program is being held. The overhead costs are predominantly utility costs, including an equivalent expense for rental of space. The current budget states that overhead costs to the company will be $433.26. This amount was estimated from the total number of hours that the program will be run at the company and average total costs in utilities for a small business. Depending on the size of the company, this cost will be variable. Prior to implementation of the program, the company will agree to incur all utility costs associated with running the program at their facility.

Additional costs may be present in the program. These costs include incentives for employees to participate. The employer may choose to pay for employee memberships to local gyms, provide a monetary or gift incentive, and/or compensation for additional work time. Once again, this is up to the employer and will be figured into each program cycle’s budget.
### B. Budget

#### Personnel

<table>
<thead>
<tr>
<th>Position</th>
<th>Hours Per Program Cycle</th>
<th>Wage</th>
<th>Fringe Benefits</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Therapist</td>
<td>40.5</td>
<td>$37.44</td>
<td>-----</td>
<td>$1,408.18</td>
</tr>
</tbody>
</table>

x 5 annual cycles

**Annual Total** $7,040.90

#### Program Supplies and Equipment

<table>
<thead>
<tr>
<th>Item</th>
<th>Description of Item</th>
<th>Quantity</th>
<th>Cost Per Diem</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Supplies</td>
<td>Paper, folders, envelopes, staples, paperclips, stamps, etc.</td>
<td>-</td>
<td>-</td>
<td>$99.95</td>
</tr>
<tr>
<td>Laptop computer</td>
<td>Used for developing PowerPoint presentations, record keeping</td>
<td>1</td>
<td>$499.99</td>
<td>$499.99</td>
</tr>
<tr>
<td>Portable Projector</td>
<td>Projector that can accompany the occupational therapist when traveling, used for PowerPoint presentations</td>
<td>1</td>
<td>$339.99</td>
<td>$339.99</td>
</tr>
<tr>
<td>Folding Projector Screen</td>
<td>Projector that can accompany the occupational therapist when traveling, used for PowerPoint presentations</td>
<td>1</td>
<td>$131.99</td>
<td>$131.99</td>
</tr>
<tr>
<td>Spine Anatomy Model</td>
<td>Model used to show participants the anatomy and movement of the spine (from <a href="http://www.shopanatomical.com">http://www.shopanatomical.com</a>)</td>
<td>1</td>
<td>$89.95</td>
<td>$89.95</td>
</tr>
<tr>
<td>Pedometers (Sportline 340 Multi-function pedometer)</td>
<td>Distributed to program participants (from pedometersusa.com)</td>
<td>20 per program cycle (x5 = 100 annually)</td>
<td>$6.95</td>
<td>$139.00 per program cycle (x5 = $695.00 annually)</td>
</tr>
</tbody>
</table>

**Annual Subtotal** $1,766.92
### Overhead Costs

<table>
<thead>
<tr>
<th>Heating, lighting, program space (per program cycle)</th>
<th>$433.26 (variable)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x 5 cycles annually</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$2,166.30</strong></td>
</tr>
</tbody>
</table>

### Annual Grand Total

<table>
<thead>
<tr>
<th>Grand Total</th>
<th><strong>$8,807.82</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Total + Overhead Costs</td>
<td><strong>$10,974.12</strong></td>
</tr>
</tbody>
</table>

### Revenue

<table>
<thead>
<tr>
<th>Revenue per Cycle</th>
<th><strong>$4,550.00</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x 5 cycles annually</td>
</tr>
<tr>
<td><strong>Annual Revenue</strong></td>
<td><strong>$22,750.00</strong></td>
</tr>
</tbody>
</table>

### C. Staffing

The occupational therapist will be contracted to the BLUE Collar program. The occupational therapist must be licensed within the state of Ohio, and registered by the National Board for Certification in Occupational Therapy (NBCOT). The occupational therapist will be required to have a minimum of a Bachelor’s Degree in occupational therapy. Additionally, at least one year of experience in industrial rehabilitation, ergonomics, and/or jobsite analysis will be required. The position description and job advertisement show the necessary and recommended qualifications for interested occupational therapists. (See Appendices U and V)
D. Funding Sources

Funding for the program would first be provided by the employer. Aside from start-up costs (computer, projector, etc.) the total cost of the program should be incurred by the employer. It is their choice to participate in the program and develop a safer environment for their workers. It is the responsibility of employers to ensure a safe environment and safe work practices. These guidelines are provided by OSHA, although safety should not end there. Training in safety and wellness may produce more productive and happy employees, and should be a priority for employers.

The BLUE Collar program could also seek funding from the Cleveland Clinic. The Cleveland Clinic currently funds programming in many different areas, including senior citizen health and various wellness programs. The Cleveland Clinic’s mission statement is “to provide better care of the sick, investigation of their problems, and further education of those who serve” (Cleveland Clinic, 2013). In Cleveland Clinic’s RTW Services Department, the specific mission is “to help injured workers return to work quickly and safely as well as arm them with skills to avoid re-injury and to work safely, productively and positively for the remainder of their career.” (M. Milicia, personal communication, February 3, 2012). This mission statement reflects the goals of the BLUE Collar program. The mission addresses injured workers, and the BLUE Collar program addresses uninjured workers. The components of the program are meant to provide education and training to prevent the occurrence of any injury, and to produce more productive and positive employees. In order to obtain internal funding from the Cleveland Clinic, Paul DiCorleto, Ph.D., must be contacts in the Research and Program Committee Office at dicorlp@ccf.org. Funding must be approved by the committee. In order to justify the expenses incurred by the Cleveland Clinic, revenue must be generated.
A second potential source of funding may be sought from the Susan Harwood Training Grant Program through the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). The Susan Harwood Training Grant Program provides funds for programs to develop training materials and to train workers and/or employers to prevent safety hazards and maintain health in their workplaces (U.S. Department of Labor, Occupational Safety and Health Administration, 2013). This grant provides funding to programs that give education and training programs to employees within the workforce. This funding does not have any geographical restrictions. Funding requests are due on May 17 of each year, and in order to apply for funding, the program analyst, Kimberly Mason must be contacted. She is located in Washington, D.C. and can be contacted at (847)759-7700 or by e-mail at HarwwodGrants@dol.gov. The total funding does not exceed $50,000 for a twelve month period. The cost for the BLUE Collar program is well below this, making this a very realistic funding source. The only reason for using this funding source is if the Cleveland Clinic is unable to provide internal funding first.

A third potential source of funding may come from The Cleveland Foundation. “The mission of the Cleveland Foundation is to enhance the lives of all residents of Greater Cleveland, now and for generations to come, by working together with our donors to build community endowment, address needs through grant making, and provide leadership on key community issues” (The Cleveland Foundation, 2013). This source would be sought out because it provides funding for programs and research in the Cleveland area. The organization states that it provides $80-87 million to programs, research, and community development each year (The Cleveland Foundation, 2013). Potential problems with obtaining funding from this source include that some donors specify that their money be used for certain causes. Unless there are causes dealing
with workplace injury prevention and employee health, funding would need to be obtained from a pooled account not specified for certain causes. However, The Cleveland Foundation states that priority of grant requests is given to programs that promote advocacy and develop new partnerships (The Cleveland Foundation, 2013). The BLUE Collar program will be provided by the Cleveland Clinic, and this program will develop, support and strengthen partnerships with Cleveland area companies. Since The Cleveland Foundation supports a variety of programs and research, they could be sought out as a potential funding source.

In order to receive funding from the Cleveland Foundation, one must first create an account at www.theclevelandfoundation.org. Once this is completed, a profile of the organization requesting funding must be made. After this, an initial grant inquiry can be made. Once the inquiry is made, a funding application can be completed once approval has been obtained and an “invitation to submit a full application” is received from the foundation.

The first funding source for the BLUE Collar program (after payment by the participating employer) is internal funding from the Cleveland Clinic. Since the funding is coming internally, there is no formal application process. This proposal will act as the application. A potential barrier to obtaining funding is personal lack of experience. Many organizations that award grants will only provide funds to more experienced individuals who have developed multiple programs. Another potential barrier is the amount of money that the Cleveland Clinic awards. In general, the organization will not award more than $12,500 to an individual within a calendar year, and many monetary awards are much lower than that. This may provide some difficulty in obtaining funding because of the cost of the BLUE Collar program. Another potential issue is the lack of randomized controlled trials that support the effectiveness of injury prevention.
programs. An organization awarding money to a program of this type will want reassurance that the program meets certain standards and has a positive impact on workforce conditions.

**E. Self-Sufficiency Plan**

It is expected that the employer will provide payment for programming, allowing the program to continue. In order to offset the costs of funding for the BLUE Collar program, employers and their companies will incur a total fee of $4,550. This fee was determined by including a fee of $160 per jobsite analysis conducted in the later sessions of the program. If workers perform job tasks at multiple sites, an additional $160 per jobsite analysis will be added to the fee. This fee was determined from The Ohio Bureau of Workers’ Compensation, which will reimburse $160 for a jobsite analysis (Ohio Bureau of Workers’ Compensation, 2013). An additional fee of $150/session will be incurred, bringing the employer’s total cost to $4,550. One year of programming (five cycles) will generate $22,750. The annual cost of the program after the first year is $10,002.12. The program will be self-sufficient and even generate revenue.

**VII. Program Evaluation**

**A. Outcome Evaluation Procedures**

In order to evaluate objective one dealing with improvement in body mechanics when completing work tasks, each participant will be individually evaluated using the Rapid Entire Body Assessment (REBA) (Hignett & McAtamney, 2000). This evaluation will be conducted by the occupational therapist for each participant on the second and ninth sessions of the program. The REBA is an assessment tool specifically designed to analyze the risk for injury based upon the individuals’ position and quality of movement during a job task. The occupational therapist will use the REBA assessment to evaluate individual positioning of the neck, trunk, legs, shoulders, elbows, and wrist. In addition to positioning, other factors including the presence of
handles, whether or not body parts are held in static position for an extended period of time, and if the job task requires multiple repetitions affect the final score. A score ranging from 0 to 11+ is generated from the assessment. A higher score indicates an increased risk for injury.

Individual scores from pre-test (week two) to post-test (week nine) will be compared. Participants that display a reduced risk of injury when performing the job task from pre-to post-test will be recorded at program completion.

The outcome evaluation for objective two, dealing with overall wellness knowledge, will be assessed once again in session nine. This objective will be assessed by the wellness questionnaire, a short evaluation given during session three. The questionnaire will be given again in session nine, and then the scores compared to determine if any improvements have been made according to a self-rated scale.

Participants will be required to provide evidence of goal setting according to objective three. Each participant will provide, either in writing or verbally, one wellness aspect that they would like to improve on (a goal). This aspect could be something such as decreased frequency of smoking, substitution of a fruit or vegetable in lunch instead of a candy bar, or many other things. Each participant will have to provide a method for achieving of this wellness goal. The method will not need to be detailed, although a basic plan should be provided (i.e. schedule 20 minutes a day for walking, go grocery shopping after just eating, etc.). This is required to be provided to the occupational therapist by the end of session four.

The outcome evaluation for the final objective, addressing job task environmental and behavioral modifications, will involve a checklist of suggested modifications. During sessions five and six of the program, the occupational therapist will observe each individual participant performing their daily job tasks. Based on this observation, the occupational therapist will create
a list of suggested modifications to the workplace environment and the employees’ behavior in order to reduce the potential for injury. Environmental modifications could include either the use of additional safety equipment or changes to equipment. Behavioral modifications could include basic postural changes, such as performing a job task seated instead of standing; use of safety equipment, such as wearing cut resistant gloves when preparing food; and/or changes in material handling/lifting techniques, such as lifting with the legs. During sessions seven and eight of the program, the occupational therapist will observe the participant performing their job tasks again, and make note of which modifications were made. The total of suggested modifications made will be tallied up, and then divided into the total amount of modifications suggested. At least 75% of the modifications will need to be made in order to meet the objective for each participant. An exception to this rule would include the acquisition of new equipment. This would be the responsibility of the employer and will not could against the employee.

**B. Process Evaluation Procedures**

Process evaluation procedures will ensure that major aspects of programming are correctly implemented. At the beginning of each session, program participants will be required to sign in to ensure compliance with the program. In order to account for all components of the program, the occupational therapist will have a folder for each participant which holds documentation. This folder will hold pre and post-test REBA assessments, a copy of the recommended environmental and behavioral modifications to the worksite, progress notes, and discharge summaries. In each folder will be a checklist to ensure that all participants experienced all portions of the program. The checklist will contain the following information: completion of pre- and post-test using the REBA assessment, completion of initial and final observation for suggested modifications, completion of initial and final wellness questionnaire, a
copy of the wellness goal provided and method to achieve it, completion of progress note, completion of discharge summary, and attendance for each session. Each participant will receive a copy of the materials in the folder once the program is completed.

C. Formative Evaluation Procedures

Formative evaluations will provide the occupational therapist with information regarding the perceptions of key stakeholders, specifically the participants (employees) and their employers. Formative evaluation will include a short survey given to participants during the fourth session of programming. At this same time, a separate evaluation form will be given to the employer. The formative evaluation surveys will provide the occupational therapist with information regarding whether the program is meeting expectations, and whether participants have any suggestions for improvement. Due to the short time frame for the program, providing the evaluation at week four is imperative in order to implement any needed changes to the program for those that feel it is unsatisfactory. The final summative evaluation form is identical to the one given at week four, only with one additional question, will be given at completion of the program (week nine) as well.
VIII. Timeline

<table>
<thead>
<tr>
<th>Task</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
<th>Week 5</th>
<th>Week 6</th>
<th>Week 7</th>
<th>Week 8</th>
<th>Week 9</th>
<th>Week 10</th>
<th>Week 11</th>
<th>Week 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase supplies: Assessments, office supplies, mailing supplies, flyers,</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recruiting flyers mailed to employers (Initially done two months prior to week 1)</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform marketing presentations to company and union</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Print program materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform occupational therapist competence training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program sessions, 1 each week</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administer REBA pre-test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Administer wellness questionnaire</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Collect individual employee wellness goals and methods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct mid-term process evaluation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete mid-term progress notes for participants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete environmental and behavioral jobsite evaluations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Administer REBA post-test and final worksite observation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Conduct final process evaluations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

NOTE: After the first cycle of the program, subsequent cycles will begin immediately after week 12. Each cycle will repeat the first cycle’s week 4 through week 12, for a total of five cycles per year.
IX. Letters of Support

In order for the BLUE Collar program to be successful, it must have support from local Cleveland area businesses and important figures in the labor unions. A letter of support was received from the general manager of Heinen’s store #9, who sees the value in injury prevention and wellness training (See Appendix X). Additional letters of support will be sought from others in order to improve the value and credibility of the program (See Appendix Y).
References


Centers for Disease Control and Prevention, National Center for Health Statistics. (2012). Higher education and income levels keys to better health, according to annual report on nation’s health. Retrieved from http://www.cdc.gov/media/releases/2012/p0516_higher_education.html


Letts, L. (2009). Health Promotion. In E.B. Crepeau, E.S. Cohn, & B. A. B. Schell (Eds.),


Ohio Bureau of Workers’ Compensation. (2012.) Transitional Work Development


U.S. Department of Labor, Occupational Safety and Health Administration. (2013). Susan


Appendix A

Organizational Chart
Appendix B

Employee Interview Form
EMPLOYEE SEMI-STRUCTURED INTERVIEW

INTRODUCTION

- Introduction
- Explain purpose of interview
- Ask permission to use information
- Ensure confidentiality (no names of people or companies)

PURPOSE OF INTERVIEW

To gain employees’ perspectives on job safety, overall wellness, and whether there is any interest in an employee wellness program.

INTERVIEW QUESTIONS

1) What types of things do you like to do in your free time?

2) What types of job duties do you have?

3) Do you consider any of your job tasks dangerous or a risk for injury?

4) Do you enjoy your job?

5) Does your company provide any safety training programs?

6) Do you try to abide by safety standards your company has?

7) Do you feel that many employees that you work with participate in unhealthy habits?

8) In terms of workplace safety, do you feel that your company needs to provide more or less training? Or is it just right?

9) Does your company have any wellness programs? (provide gym memberships, address health issues, provide health screenings, etc.)

10) Do you think that your company would benefit from a wellness program?

11) Do you think that employees at your company would participate in a wellness program if it was offered? If an incentive was provided?
Appendix C

Employee Survey
EMPLOYEE SURVEY

What does your company do? _________________________________________________

Please indicate your level of education

High School Grad/GED Some College College Degree (Associate’s or Bachelor’s)
Some Graduate School Graduate Degree

Please rate your level of agreement with each question.

1) I manage my stress levels well.

1 2 3 4 5
Strongly Somewhat Neutral Somewhat Strongly
Disagree Disagree Agree Agree

2) My job does not cause unreasonable amounts of stress in my life.

1 2 3 4 5
Strongly Somewhat Neutral Somewhat Strongly
Disagree Disagree Agree Agree

3) I have enough time for myself (leisure time)

1 2 3 4 5
Strongly Somewhat Neutral Somewhat Strongly
Disagree Disagree Agree Agree

4) I try to refrain from unhealthy habits (smoking, alcohol, etc.)

1 2 3 4 5
Strongly Somewhat Neutral Somewhat Strongly
Disagree Disagree Agree Agree

5) I practice healthy habits. (exercise regularly, eat healthy, etc.)

1 2 3 4 5
Strongly Somewhat Neutral Somewhat Strongly
Disagree Disagree Agree Agree
Appendix D

Employee Observation Form
EMPLOYEE OBSERVATION

Type of Industry ____________________________

Observed Behaviors of Employees:

Observed Interaction with Others (employees and customers if applicable):

Topics Discussed Through Conversation with Employees:

Other Observations:
Appendix E

Semi-Structured Interview
KEY INFORMANT SEMI-STRUCTURED INTERVIEW WITH CLEVELAND CLINIC RETURN TO WORK SERVICES HEAD OCCUPATIONAL THERAPIST

INTRODUCTION

- Greeting
- Explanation for taking notes, how they will be used
- Permission to use notes
- Explain perspective and trends observed through literature review
- Explanation of occupational therapy not necessary to an experienced occupational therapist. The use of the term occupation was described by describing its use in CFTO as something an individual does with meaning and purpose.

PURPOSE OF INTERVIEW

To gain an expert clinician’s opinion on whether there is a need for programming in the workforce and what needs those are.

INTERVIEW QUESTIONS

1. What types of services do you provide at this facility?
   - Occupational rehabilitation, work conditioning, individual OT/PT services, vocational rehabilitation, functional capacity evaluations, jobsite analyses, and ergonomic assessments, and pre-employment post offer screenings.

2. What are the common diagnoses that are seen?
   - Particularly injured workers with orthopedic impairments and musculoskeletal injuries.

3. What type of instruction seems to work best with this population? Are there any methods that you avoid?
   - There are none to avoid, but like in any other therapeutic relationship you have to adapt the teaching methods to match the individual or group’s learning style. Demonstration, verbal instruction, and visual models of anatomical structures seem to work the best.

4. Are there any programs in place for prevention of injuries along with rehabilitation?
   - There are of course OSHA safety standards where many employers get their information. Each company is different, some use pre-employment screens like the Cleveland Clinic does. The cost of doing a pre-employment screen is meant to offset the costs and limit injuries.

5. Are there any general habits or actions of individuals that you treat that may be considered unhealthy?
   - Definitely. This is more on a personal basis and more information would have to be gathered on the data for things such as smoking for example, but there are
definitely noticeable trends in terms of health for many employees that get injured. Diet, smoking, alcohol, and lack of exercise all contribute to risk for injury. OT’s can be consultants in any of those areas, especially if an organization is going to build a program. Even if they are planning on building a gym on site, the OT can recommend certain machines and pieces of equipment.

6. Do you think that individuals in the workforce would be willing to make changes in their habits for better health?
   - It would be mixed. Some individuals who have led a healthy life already or have history of wellness would probably be more receptive to a program, especially if they don’t have access to it. There are also many individuals out there who aren’t interested in healthy habits. They only become interested in it when they become injured and it makes them lose function. The key would be to provide an incentive, which would be an added bonus for the motivated ones and hopefully motivate the others to participate.

7. Do you think that employers would be interested in a program promoting employee wellness?
   - Yes but it would take some convincing. By providing proof that a wellness program can reduce costs in worker’s compensation, I can see companies becoming interested. They don’t want to have the extra costs of a program, but you would have to prove that overall it would reduce costs. So it would require a cost to benefit analysis.

8. If a prevention and wellness program were to be developed for employees, what would you consider to be very important to include in it?
   - As said before, definitely addressing habits such as smoking and alcohol, exercise, diet, safe material handling, and best practices for the workplace.

9. Do you feel that a program addressing the needs identified above is feasible in the area?
   - Yes, but the challenge would be identifying the organizations that would commit to it when it comes time to market the program.

10. Already knowing the skill set and characteristics that OT’s possess, can you see a benefit in providing an employee wellness program facilitated by an OT?
    - Absolutely, the factors in the potential program are fundamental to our profession historically. OT’s are well equipped with a unique skill set to carry out this type of program.

11. Are there any resources that discuss employee wellness that you recommend me to explore? Other resources?
    - Definitely dig deep into the Ohio BWC (Bureau of Worker’s Compensation). This will show what industries are most affected by injuries and it will give you a sense of the costs and types of injuries. This will be fundamental in determining the costs and benefits.
Appendix F

Marketing Flyer
The BLUE Collar Program

(Better Lifestyle and Utilizing wellness for Employees)

Benefits of the BLUE Collar Program:

- Reduction in worker’s compensation costs
- Improved employee performance

The BLUE Collar Program Includes:

- A worksite analysis performed by a licensed occupational therapist
- Skills training in safe lifting techniques
- Targeted health promotion methods, including healthy eating habits and exercise

Provided by:

The Cleveland Clinic
Return to Work Services
C Building—W.O Walker Center
10524 Euclid Ave.—Desk C22
Cleveland, OH 44195

If Interested, please contact Chase Majewski by phone at (440)749-2427 or by e-mail at Chase.Majewski@rockets.utoledo.edu
Appendix G

Marketing Letter
Chase Majewski  
Cleveland Clinic Return to Work Services  
C Building – W.O. Walker Center  
10524 Euclid Ave. – Desk C22  
Cleveland, OH 44195  
(440)749-2427  
Chase.majewski@rockets.utoledo.edu

March 23, 2012

Employer Name  
Title  
Company  
Company Address  
City, State, Zip Code

Dear _______________________,

The purpose of this letter is to recruit employees for a workplace injury prevention program entitled the BLUE Collar Program. Enclosed is a flyer outlining the major aspects of programming. The BLUE Collar program, affiliated with the Cleveland Clinic Return to Work Services Department aims to provide employees, as well as employers, with the skills necessary to avoid injury while on the job. The specific goal of the BLUE Collar Program is to reduce potential for work injuries among employees.

Based on research findings, safety and injury prevention programs have resulted in fewer workplace injuries and reduced cost in worker’s compensation. Additionally, employees have been reported to be more productive and motivated at work when risks for injury have been eliminated or reduced.

The BLUE Collar Program contains specific intervention and hands-on training provided by a licensed occupational therapist training in injury prevention methods and ergonomics. Specific issues such as optimal positioning for job tasks, safe material handling, and lifting techniques will be addressed within the program. Also, a major component of programming deals with health initiatives, such as substance abuse, maintaining a healthy diet, and incorporating regular exercise into a daily routine. Additionally, the occupational therapists will schedule a worksite visit to make reasonable recommendations for improved productivity, efficiency, and safety of job tasks performed.

If interested in the program, please contact Chase Majewski for further information by phone at (440)749-2427 or by e-mail at chase.majewski@rockets.utoledo.edu.

Sincerely,

Chase Majewski
Appendix H

Marketing Pamphlet


**The Blue Collar Program**

Mission:
- **Enhance Your Contact Time:** Keep your employees engaged and productive.
- **Proven Techniques:** Equip your employees with the skills they need to succeed.
- **Healthy Weight:** Promote a healthy lifestyle among your employees.
- **Reduced Injury Risk:** Implement strategies to minimize workplace injuries.

Program Components:
- **Education on Proper Lifting Techniques:** Train your employees on proper lifting techniques to avoid injuries.
- **Ongoing Wellness Programs:** Regular health assessments and personalized wellness plans.
- **Continuous Learning:** Opportunities for ongoing education and skill development.

Components of the Program:
- Benefits:
  - Education on Exercise
  - Diet
  - Maintaining a Healthy Lifestyle

Contact Information:
- If you have any questions or need further assistance, please reach out to our support team.

Get in touch today to learn more about how we can help your business thrive.

---

**Program Details**

- **Education on Exercise:**
  - Healthy habits
  - Personalized plan
  - Information on how to develop their own

- **Diet**
  - Proper nutrition
  - Information on how to maintain a healthy lifestyle

- **Maintaining a Healthy Lifestyle**
  - Regular exercise
  - Nutritious diet

Contact us today to learn how we can help your business thrive.
Appendix I

Participant Sign-in Sheet
BLUE Collar Program Sign-In Sheet

Session #___

1. ____________________________ 12. ____________________________
2. ____________________________ 13. ____________________________
3. ____________________________ 14. ____________________________
4. ____________________________ 15. ____________________________
5. ____________________________ 16. ____________________________
6. ____________________________ 17. ____________________________
7. ____________________________ 18. ____________________________
8. ____________________________ 19. ____________________________
9. ____________________________ 20. ____________________________
10. ____________________________ 21. ____________________________
11. ____________________________ 22. ____________________________
Appendix J

Rapid Entire Body Assessment
Appendix K

Wellness Questionnaire
Wellness Questionnaire

Please answer the following truthfully. The questions provided are meant to give you more awareness to your own state of wellness.

1) Overall do you believe that your current lifestyle
   a) Positively affects your health
   b) Negatively affects your health
   c) Does not affect your health
   d) Unsure

2) Of all the possible actions you could take to prevent disease and maintain or improve your health, how much do you think that you are currently doing?
   a) None at all
   b) 1-25% of the things you could be
   c) 26-50% of the things you could be
   d) 51-75% of the things you could be
   e) 100% of the things you could be

3) Which area of wellness would you most like to change to improve your health?
   a) Exercise
   b) Diet and nutrition
   c) Weight management
   d) Stress
   e) Substance use (smoking, drinking alcohol, etc.)
   f) None
4) How do you feel about your current weight?
   a) Satisfied with weight
   b) Would like to lose weight
   c) Would like to gain weight

5) Do you incorporate at least 30 minutes of physical activity into most days? (5-6 days/week)
   a) Yes
   b) No

6) On average, how many times per week do you perform aerobic exercise? (at least 20 minutes at a time)
   a) Never
   b) <1 time a week
   c) 1-2 time per week
   d) 3 or more times per week

7) Do you participate in strength training activities? (i.e. weight lifting)
   a) Yes
   b) No

8) What is the biggest barrier to increasing or maintaining your level of exercise?
   a) Not enough time
   b) Cost
   c) Lack of appropriate equipment
   d) Inexperience
   e) Unable to perform exercises
9) How often do you eat breakfast?
   a) Never
   b) Occasionally
   c) Most of the time
   d) Always

10) How often do you go out to eat? (either sit down restaurant or fast food)
   a) Daily
   b) Frequently (multiple times per week)
   c) Occasionally (once per week or less)
   d) Never

11) How often do you read the nutrition label on food?
   a) Always
   b) Occasionally
   c) Never

12) Do you feel that you could read a nutrition label well enough to avoid unhealthy foods?
   a) Yes
   b) No

13) How often do you choose low fat or low cholesterol foods?
   a) Never
   b) Occasionally
   c) Often
14) On average, how many alcoholic drinks do you have in one sitting?
   a) 1-2 drinks
   b) 3-5 drinks
   c) Over 5
   d) None

15) On average, how many days per week do you drink alcohol?
   a) Less than 1 day a week
   b) 1-2 days per week
   c) 3-5 days per week
   d) 6-7 days per week

16) Do you smoke cigarettes, cigars, or use chewing tobacco?
   a) Yes
   b) No

17) If you have tried or are trying to quit smoking, what is the main reason that you have not been able to do so?
   a) Cannot break the addiction
   b) Too much stress in life
   c) I enjoy it too much
   d) I haven’t tried quitting

18) Do you feel that stress has affected your health in the past year?
   a) Yes
   b) No
   c) Unsure
19) How well do you feel you deal with stress in your life?
   a) Very well
   b) Well enough
   c) Not well enough
   d) Unsure

20) Do you have trouble sleeping at night?
   a) Yes
   b) No
Appendix L

Worksite Behavior and Environmental Checklist
Worksite Modification Checklist

Employee Name:____________________________

(✓) If suggested modifications are implemented

**Environmental Modifications**

- 1._____________________________________________________________________
- 2._____________________________________________________________________
- 3._____________________________________________________________________
- 4._____________________________________________________________________
- 5._____________________________________________________________________
- 6._____________________________________________________________________
- 7._____________________________________________________________________

**Worker Behavioral Modifications**

- 1._____________________________________________________________________
- 2._____________________________________________________________________
- 3._____________________________________________________________________
- 4._____________________________________________________________________
- 5._____________________________________________________________________
- 6._____________________________________________________________________
- 7._____________________________________________________________________
Appendix M

Acknowledgement and Agreement Form for Programming
BLUE Collar Program Acknowledgement and Agreement Form

I, ___________________________ (Print name), agree to participate in the BLUE Collar Program. I understand that my employer has scheduled this program for me as an employee to improve upon my health and well-being. I understand that I am not required to make any changes to my work and/or life habits, although the information provided in this course is designed to help me to improve upon my health.

I agree to participate in program activities to further my knowledge in health and wellness. I understand that the information provided in the program is designed to improve my level of awareness regarding my own personal health, and my health will not improve as a direct result of attending programming. I will participate in group discussions/activities and will consider any changes recommended to my work habits.

Signature: ________________________________

Date: ________________________________
Appendix N

Discussion Questions
Sample Discussion Questions

1) What is the major product or service provided by the company?

2) What different job tasks do employees do?

3) Do you work longer shifts, shorter shifts, etc.?

4) Are there certain aspects of the job that are harder than others? (more physically or mentally challenging?)

5) Do you feel that you work in a safe work environment?

6) Are there any common injuries that occur in the workplace, or, are there any job tasks that could be potentially dangerous?

7) What types of things do you like to do outside of work?
Appendix O

Initial Worksite Tour and Introduction Form
Worksite Tour Form

Take notes on the nature of the work done, the types of equipment used, and any potentially dangerous areas of the workplace.

*Work done/product or service performed:*

*Equipment Used:*

*Potentially Dangerous Areas:*
Appendix P

Anatomy/Biomechanics/Lifting Packet
Spine Anatomy

Spine Terminology:

Vertebra- The bones of the spine

Disc – cushion in between each vertebra, composed of the annulus fibrosis (tougher outside) and the nucleus pulposus (soft inside)

Bulging Disc – bulging of the annulus fibrosis (disc) which may put pressure on nerves, causing pain.

Herniated Disc – bulging of both the annulus fibrosis and the soft nucleus pulposus.

Degenerated Disc – developed from wear and tear on the spine, like arthritis.
Lifting Objects to Your Waist

First, assume a wide stance. Make sure that your body is square with the object.

Bend your arms at your elbows. This is a good position to carry the object from. Remember to keep the object close to your body.

Squat down by bending at your knees and grasp the object. Keeping your spine in its natural alignment, rock your pelvis forward.

To lower the object, do the exact opposite. First, straighten your elbows to lower the object.

Next, straighten your knees, using your leg muscles to lift the load.

Last, lower the object to the ground while squatting.
Lifting Objects to a Shelf at Chest Level

First, lift the object to your waist. Square your body with the shelf.

When retrieving the object, grab the handles and step back.

Next, walk the object into the shelf, keeping it close to your body.

Now, bring your other foot back.

Step into the shelf,
Making sure the object is fully on the shelf before releasing it.
**Lifting Objects to a Shelf at Shoulder Level or Above**

First, square your body with the shelf.

When placing or retrieving the object, it may be easier to place one hand under it for more power while the other hand guides it.

Raise your arms to place the object on the shelf, try to refrain from arching your back. Step into the shelf, keeping the object close to your body.

Step backward with the object, using your legs to help control the object.

Push the object in with one hand, guiding it in with the other.

Step back with the other leg and slowly lower the object down with your arms,
Appendix Q

Nutrition and Exercise Packet
Name: ________________________________

Nutrition and Exercise Packet
<table>
<thead>
<tr>
<th>Height (inches)</th>
<th>BMIs</th>
<th>Normal</th>
<th>Overweight</th>
<th>Obese</th>
<th>Extreme Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>19.0</td>
<td>19.1</td>
<td>19.2</td>
<td>19.3</td>
<td>19.4</td>
</tr>
<tr>
<td>41</td>
<td>19.5</td>
<td>19.6</td>
<td>19.7</td>
<td>19.8</td>
<td>19.9</td>
</tr>
<tr>
<td>42</td>
<td>20.0</td>
<td>20.1</td>
<td>20.2</td>
<td>20.3</td>
<td>20.4</td>
</tr>
<tr>
<td>43</td>
<td>20.5</td>
<td>20.6</td>
<td>20.7</td>
<td>20.8</td>
<td>20.9</td>
</tr>
<tr>
<td>44</td>
<td>21.0</td>
<td>21.1</td>
<td>21.2</td>
<td>21.3</td>
<td>21.4</td>
</tr>
<tr>
<td>45</td>
<td>21.5</td>
<td>21.6</td>
<td>21.7</td>
<td>21.8</td>
<td>21.9</td>
</tr>
<tr>
<td>46</td>
<td>22.0</td>
<td>22.1</td>
<td>22.2</td>
<td>22.3</td>
<td>22.4</td>
</tr>
<tr>
<td>47</td>
<td>22.5</td>
<td>22.6</td>
<td>22.7</td>
<td>22.8</td>
<td>22.9</td>
</tr>
<tr>
<td>48</td>
<td>23.0</td>
<td>23.1</td>
<td>23.2</td>
<td>23.3</td>
<td>23.4</td>
</tr>
<tr>
<td>49</td>
<td>23.5</td>
<td>23.6</td>
<td>23.7</td>
<td>23.8</td>
<td>23.9</td>
</tr>
<tr>
<td>50</td>
<td>24.0</td>
<td>24.1</td>
<td>24.2</td>
<td>24.3</td>
<td>24.4</td>
</tr>
<tr>
<td>51</td>
<td>24.5</td>
<td>24.6</td>
<td>24.7</td>
<td>24.8</td>
<td>24.9</td>
</tr>
<tr>
<td>52</td>
<td>25.0</td>
<td>25.1</td>
<td>25.2</td>
<td>25.3</td>
<td>25.4</td>
</tr>
<tr>
<td>53</td>
<td>25.5</td>
<td>25.6</td>
<td>25.7</td>
<td>25.8</td>
<td>25.9</td>
</tr>
<tr>
<td>54</td>
<td>26.0</td>
<td>26.1</td>
<td>26.2</td>
<td>26.3</td>
<td>26.4</td>
</tr>
<tr>
<td>55</td>
<td>26.5</td>
<td>26.6</td>
<td>26.7</td>
<td>26.8</td>
<td>26.9</td>
</tr>
<tr>
<td>56</td>
<td>27.0</td>
<td>27.1</td>
<td>27.2</td>
<td>27.3</td>
<td>27.4</td>
</tr>
<tr>
<td>57</td>
<td>27.5</td>
<td>27.6</td>
<td>27.7</td>
<td>27.8</td>
<td>27.9</td>
</tr>
<tr>
<td>58</td>
<td>28.0</td>
<td>28.1</td>
<td>28.2</td>
<td>28.3</td>
<td>28.4</td>
</tr>
<tr>
<td>59</td>
<td>28.5</td>
<td>28.6</td>
<td>28.7</td>
<td>28.8</td>
<td>28.9</td>
</tr>
<tr>
<td>60</td>
<td>29.0</td>
<td>29.1</td>
<td>29.2</td>
<td>29.3</td>
<td>29.4</td>
</tr>
<tr>
<td>61</td>
<td>29.5</td>
<td>29.6</td>
<td>29.7</td>
<td>29.8</td>
<td>29.9</td>
</tr>
<tr>
<td>62</td>
<td>30.0</td>
<td>30.1</td>
<td>30.2</td>
<td>30.3</td>
<td>30.4</td>
</tr>
<tr>
<td>63</td>
<td>30.5</td>
<td>30.6</td>
<td>30.7</td>
<td>30.8</td>
<td>30.9</td>
</tr>
<tr>
<td>64</td>
<td>31.0</td>
<td>31.1</td>
<td>31.2</td>
<td>31.3</td>
<td>31.4</td>
</tr>
<tr>
<td>65</td>
<td>31.5</td>
<td>31.6</td>
<td>31.7</td>
<td>31.8</td>
<td>31.9</td>
</tr>
<tr>
<td>66</td>
<td>32.0</td>
<td>32.1</td>
<td>32.2</td>
<td>32.3</td>
<td>32.4</td>
</tr>
<tr>
<td>67</td>
<td>32.5</td>
<td>32.6</td>
<td>32.7</td>
<td>32.8</td>
<td>32.9</td>
</tr>
<tr>
<td>68</td>
<td>33.0</td>
<td>33.1</td>
<td>33.2</td>
<td>33.3</td>
<td>33.4</td>
</tr>
<tr>
<td>69</td>
<td>33.5</td>
<td>33.6</td>
<td>33.7</td>
<td>33.8</td>
<td>33.9</td>
</tr>
</tbody>
</table>

**My BMI:____________________________________________**
Do you remember the food pyramid?

The base of the pyramid was grains, stating that you should have 6-11 servings. Above that was fruits and vegetables, and above than was dairy and meat, and finally, fats and sweets were at the top.

The pyramid looks a little different now!

In 2011, the U.S. Department of Agriculture removed the pyramid symbol, changing it to a “plate” shape. Daily food group recommendations are now personalized, and can be made at http://www.choosemyplate.gov/myplate/index.aspx. However, basic recommendations are still available.
According to the U.S. Department of Agriculture, when choosing your plate, there are a few things that you should keep in mind in regards to food groups.

- **Any fruit or 100% fruit juice counts as part of the Fruit Group.** Fruits may be fresh, canned, frozen, or dried, and may be whole, cut-up, or pureed.

- **Any vegetable or 100% vegetable juice counts as a member of the Vegetable Group.** Vegetables may be raw or cooked; fresh, frozen, canned, or dried/dehydrated; and may be whole, cut-up, or mashed.

- **Half of your plate should be fruits and vegetables**

- **Any food made from wheat, rice, oats, cornmeal, barley or another cereal grain is a grain product.** Bread, pasta, oatmeal, breakfast cereals, tortillas, and grits are examples of grain products.

- **Make at least half of your grains whole grains**

- **All foods made from meat, poultry, seafood, beans and peas, eggs, processed soy products, nuts, and seeds are considered part of the Protein Foods Group.**

- **All milk products and many foods made from milk are considered part of this food group.** However, Foods made from milk that have little to no calcium, such as cream cheese, cream, and butter, are not.

- **It is best to use fat-free or low-fat (1%) milk**
Components of food

Carbohydrates –
Come from plant food and give us energy.
There are two types of carbohydrates “complex” and “simple”
Complex – Come from slowly digested foods (whole grain breads, Brown rice, vegetables) and have more vitamins and minerals
Simple – Come from easily digested foods (white bread, white Rice, pasta) and have been refined, poor in vitamins and minerals
General Guideline: About 50-60% of your diet should come from carbohydrates

Proteins –
Used to build and maintain cells, muscle, tendons, ligaments.
Proteins come from two different sources
Meats – poultry, fish, eggs, meat (these supply complete proteins)
Plants – rice, corn, and beans (supply incomplete proteins, so a variety is needed)
General Guideline: About 12-20% of your diet should come from protein

Fats -
Not all fat is bad! Fat is actually essential!
Healthy fats – olive, canola, and peanut oils (found also in nuts), also fatty fish oils, sunflower oil, soybean oil
Unhealthy fats – found in red meats, dark poultry, butter, egg yolk, And any hydrogenated oils
General Guidelines: Eat fats sparingly; get most fat from fish or nuts. Also, avoid solid fats, such as butter, shortening, or lard. Read the nutrition label, avoid trans fats!

An additional important component of food is fiber, which is a type of carbohydrate found in plants. Fiber comes from many sources, grains, fruit, seeds, and certain vegetables such as carrots and cucumbers. Fiber is beneficial for the healthy blood and digestion.
Reading a Food Label

A food label is required to be on all purchased food items. It includes information such as the number of calories, the number of servings in the package, the recommended serving size, and the amounts of certain food molecules (carbohydrates, fats, cholesterol, etc.).

All serving sizes of the same food are the same. This makes it easier when comparing different brands of the same food.

The total calories for 1 serving of the food is shown here.

This area shows the amounts of different nutrients in each serving, also, the percentage of your daily value (based on a 2000 calorie diet) is provided.

**This area shows the percentage of daily vitamins and minerals present in the food (also based on a 2000 calorie diet)**

This area of the label helps you to calculate your daily allowance of various fats, sodium, carbohydrates, and fiber depending upon your daily calorie intake.

This bottom area shows the number of calories present in one gram of fat, carbohydrate, and protein for the food.

**Watch for terms on food packaging such as “low”, “high” and “free”. For a food to be labeled as “low-fat” it must have no more than 3 grams of fat per serving. A “low calorie” food must have no more than 40 calories per serving.**
Tips to maintaining a healthy weight…

1) Get a good balance between diet and physical activity

2) When eating out…
   - order ½ portions
   - choose items with low fat preparation (look for words like “baked”, “broiled”, “grilled”, “steamed”, “poached”, “simmered”, “skinless”. Avoid “fried” foods)
   - Take ½ of the meal home in a box!

3) Eat slowly! It takes around 15-20 minutes for the brain to register that you are full

4) Also, stop eating when you feel full

5) A salad is not always healthy…go easy on salad toppings.

6) Choose natural foods instead of processed.
Creating Your Own Diet Plan with SuperTracker


2. Click on the Supertracker

3. Click on Create Your Profile towards the bottom of the page

4. Personalize and register your profile, when finished, click Submit

5. Click on Activate My Coach Center

6. A personalized page should appear. The blue bar contains information on your target for physical activity, your daily calorie count, and food group targets. You can set goals for what you want to do with your plan, which will change your allowed amounts of calories, food, and physical activity in the blue bar. They can be related to maintaining or losing weight, cutting calories, eating certain food groups, or getting enough of a particular vitamin or mineral in your diet.

Log in each day to track your progress, keep a log of the food you have eaten, the physical activity you have done, and your progress towards your goals!
Exercise!

Exercise Benefits:

- Decreased risk of: heart disease, stroke, high blood pressure, diabetes, depression, anxiety, STRESS
- Improved sleep
- Increased flexibility and posture
- Pain relief
- Achieve/maintaining a healthy weight

AND MUCH MORE!

Exercise Guidelines:

- In general...physicians recommend at least 30 minutes of physical activity most days of the week.
- To prevent weight gain, you may need at least 60 minutes of physical activity. To sustain weight loss, you may need 60-90 minutes of physical activity.
- Make an appointment with a personal trainer, they can help you develop a program to achieve your exercise goals. Many gyms offer 1 or 2 free personal training sessions!
- Both cardio and strength training are important!
- Consult your doctor before starting any exercise program!
The following is a sample beginner exercise program outline designed for weight loss. This is just a sample program and does not mean that it is right for you. Consult a personal trainer and your physician before starting any exercise program.

**Day 1 – Aerobic Exercise**
Walk briskly for 20 minutes. You can use your treadmill if you have one. If not, walk around your block or in a park. Make sure it’s a brisk walk so that you are getting your heart to work.
Try using a pedometer to track how far you walk.

**Day 2 – Strength Training**
Warm-up for about 5 to 10 minutes and do some stretching exercises to stretch those muscles.

**Upper Body**
Select 2 to 3 muscles in the upper body to start with (biceps, triceps, shoulders, chest, back)
Do 1 to 2 sets of 8 to 16 repetitions.

**Lower Body**
Choose at least 2 - 3 of the following; Squats, lunges, or calf raises. Do 1 – 2 sets of 8 – 16 reps each for the lower body exercises.

**Core muscles**
Do 10 minutes of core muscle exercises (sit-ups, leg lifts, crunches). The core includes the abdominals and lower back.

**Day 3 – Day off!**

**Day 4 - Aerobics**
Do a 20 minute aerobic workout. You can do walking again for 20 minutes, but if you want a slight change of pace, try adding something different (such as going up and down stairs for 5 minutes) at the end.

**Day 5 - Strength Training**
Follow the same guidelines as on day 2! (try picking different muscles in order to work all the muscles this week!)

**Day 6 and 7 – Rest and get ready to repeat**
Do this same weight loss workout for a few weeks and then start to add more time to your aerobic workout and more sets or repetitions to your strength training.
Appendix R

Healthy Body Packet
Healthy Body Packet
Personal Health History

Date: ____________________________

Name: _______________________________________________  Gender: ____________

Date of Birth: ________________________  Age: ____________________________

Place of Birth: _________________________________________________________________

Ethnicity: _____________________________________________________________________

MEDICAL HISTORY

List of current conditions with dates of diagnosis:

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Previous Surgeries (include date and location):

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Previous injuries/Medical conditions (include date):

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

PRESCRIPTION MEDICATIONS (Include how long taken):

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
SUPPLEMENTS TAKEN (including vitamins)

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

ALLERGIES (Include Medications)

______________________________________________________________________________

______________________________________________________________________________

SOCIAL HISTORY AND LIFESTYLE

Marital Status: _________________

Sexually Active? Y or N

Tobacco Use

Have you ever used tobacco products? Y or N  Currently Use? Y or N

Number of cigarettes/cigars/times chewing per day (on average): _________________________

Number of years using tobacco products: ____________________________

Ever attempted to quit? Y or N  Last attempt: _______________________

Alcohol Use

Number or drinks per week: _____________________________________________

Ever attempted to quit? Y or N  Last attempt: _______________________

Illegal Drugs

Have you ever used illegal drugs? Y or N

Last time using: ________________________________
EXERCISE

Do you regularly exercise?  Y  or  N

What types of exercise?  ____________________________________________________________

How often do you exercise per week?  _______________________________________________

Average length of exercise sessions:  ________________________________________________

VACCINATIONS

<table>
<thead>
<tr>
<th>Vaccination</th>
<th>Date</th>
<th>Vaccination</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza</td>
<td></td>
<td>Measles, Mumps, Rubella</td>
<td></td>
</tr>
<tr>
<td>Tetanus (DPT)</td>
<td></td>
<td>Varicella (chicken pox)</td>
<td></td>
</tr>
<tr>
<td>Hepatitis A</td>
<td></td>
<td>Meningitis</td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td></td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

FAMILY HEALTH HISTORY

<table>
<thead>
<tr>
<th>Relative</th>
<th>Alive (Y or N)</th>
<th>Age (or age of death)</th>
<th>Medical condition/cause of death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sibling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sibling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sibling</td>
<td>_________</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grandparent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grandparent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grandparent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grandparent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aunt/Uncle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aunt/Uncle</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PRIMARY PHYSICIANS

#1 Name: __________________________  Specialty: ________________________________
Address: ______________________________________________
________________________________________________
________________________________________________
Phone Number: _________________________________________

#2 Name: __________________________  Specialty: ________________________________
Address: ______________________________________________
________________________________________________
________________________________________________
Phone Number: _________________________________________

#3 Name: __________________________  Specialty: ________________________________
Address: ______________________________________________
________________________________________________
________________________________________________
Phone Number: _________________________________________
### Adult Screening Recommendations

<table>
<thead>
<tr>
<th>Type of Test</th>
<th>What does it do?</th>
<th>How often?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Cholesterol</td>
<td>Helps to detect risk of coronary artery disease</td>
<td>-First test in your 20’s. Then every 5 years after.</td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>Helps reduce risk for high blood pressure and stroke</td>
<td>-At least every 2 years, some practitioners may request more often</td>
</tr>
<tr>
<td>Colon Cancer Screen</td>
<td>Detect growths or polyps in the colon</td>
<td>-Colonoscopy every 5-10 years after age 50</td>
</tr>
<tr>
<td>Physical Exam</td>
<td>Detect disease and certain conditions before symptoms develop</td>
<td>-2 times in your 20’s -3 times in your 30’s -4 times in your 40’s -5 times in your 50’s -Annually in your 60’s (possibly more frequently depending upon your provider)</td>
</tr>
<tr>
<td>Dental Health Check-up</td>
<td>Find cavities and problems with gums, tongue, and mouth</td>
<td>-At least once per year</td>
</tr>
<tr>
<td>Chest X-ray</td>
<td>Detect disease or abnormality in lungs</td>
<td>-Not routine, only when recommended by practitioner</td>
</tr>
<tr>
<td>Electrocardiogram (ECG)</td>
<td>Detect injury or irregularity of heart</td>
<td>-Not routine, only when recommended by practitioner</td>
</tr>
<tr>
<td>Eye Exam</td>
<td>Detect for vision issues</td>
<td>-Every 4 to 5 years</td>
</tr>
<tr>
<td>Mammogram (women only)</td>
<td>Detect breast cancer early</td>
<td>-Annually if over 50 years old -Possibly annually if in 40’s as well and practitioner recommends it</td>
</tr>
<tr>
<td>Pap Smear (women only)</td>
<td>Detect possible cells that may develop into cancer within the reproductive system</td>
<td>-Every 1 to 3 years based on practitioner recommendation</td>
</tr>
<tr>
<td>Prostate-Specific Antigen (PSA) Test (men only)</td>
<td>Detect possibility for prostate cancer</td>
<td>-Only if practitioner recommends or if you have a family history of prostate cancer</td>
</tr>
</tbody>
</table>

All of these screenings are basic recommendations for persons in good health. Consult your physician before scheduling any screenings. Recommendations may vary depending upon level of health, age, sex, past illness or condition, and family history.
Additional Health Issues

SMOKING

“Smoking harms nearly every organ of the body. Cigarette smoking causes 87 percent of lung cancer deaths. It is also responsible for many other cancers and health problems. These include lung disease, heart and blood vessel disease, stroke and cataracts.” (MedLine, 2013)

Interested in quitting?

1)  http://www.cdc.gov/tobacco/quit_smoking/how_to_quit/index.htm - providing testimonials from previous smokers, tips to help quit, and motivation to quit

2)  Cleveland Clinic’s Tobacco Treatment Center – providing targeted intervention to help you quit and start a healthier life. More information can be found at http://my.clevelandclinic.org/tobacco/default.aspx

3)  The American Lung Association – providing specialized programs nationwide to help you to quit smoking. The Freedom from Smoking program is available to help you to realize why you smoke and how to overcome your habit. For more information, visit http://www.lung.org/stop-smoking/how-to-quit/getting-help/
ALCOHOL USE

“The harmful use of alcohol results in 2.5 million deaths each year. 320 000 young people between the age of 15 and 29 die from alcohol-related causes, resulting in 9% of all deaths in that age group. Also, alcohol is the world’s third largest risk factor for disease burden”

(World Health Organization, 2013)

Interested in quitting?

1) Alcoholics Anonymous Northeast Ohio – providing possible alternative to using (or abusing alcohol. AA uses the twelve-step program during meetings to help individuals quit their habit. More information is found at http://www.aaneoh.org/ or http://www.aacleve.org/

2) Cleveland Clinic Alcohol and Drug Recovery Center – provides appointments for individuals using alcohol or substances in a harmful way. The Cleveland Clinic provides many different program options to fit your needs to quit. More information can be found at http://my.clevelandclinic.org/psychiatry/services/drug_recovery/default.aspx

3) Power to quit – an online program that provides the opportunity for you to quit your habit independently. The program provides free 24-hour support as well as a free coaching call. The program provides testimonials and information about the importance of living without the influence or dependence of alcohol. The program can be found at http://www.powertoquit.org/
STRESS
EVERYONE experiences it.

Common sources of stress:
Family, friends, money, work (and/or school), health issues

How stress affects us:
Stress can cause a lot of different symptoms, including headaches, upset stomach, elevated blood pressure, chest pain, depression, diabetes, and problems sleeping. Many diseases can be worsened by prolonged stress as well.

Common coping methods:

- Music
- Laughing or crying
- Going out with friends (shopping, movie, dining)
- Taking a bath or shower
- Writing, painting, or other creative activity
- Exercising or getting outdoors to enjoy nature
- Discussing situations with a spouse or close friend
- Gardening or making home repairs
- Practicing deep breathing, meditation, or muscle relaxation
- Be careful not to cope with stress negatively (violence, anger, substance use)

“The Occupational Safety and Health Administration (OSHA) declared stress a hazard of the workplace. Stress costs American industry more than $300 billion annually” (WebMD, 2013).
### Stress Resistance Quiz

*This is a quick quiz to measure your ability to manage and resist stress based on your lifestyle.*

Mark “0” points if the statement never applies to you
Mark “1” point if it is usually not true
Mark “2” points if it is sometimes true
Mark “3” points if it is always true

<table>
<thead>
<tr>
<th>Points</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>When I work hard, it makes a difference</td>
</tr>
<tr>
<td>2)</td>
<td>It’s easy for me to get out of bed in the morning</td>
</tr>
<tr>
<td>3)</td>
<td>I have the freedom I need to do what I want</td>
</tr>
<tr>
<td>4)</td>
<td>It’s okay to make a sacrifice if it’s related to an exciting opportunity</td>
</tr>
<tr>
<td>5)</td>
<td>I’m flexible about sticking to my routine</td>
</tr>
<tr>
<td>6)</td>
<td>I vote because I believe it makes a difference</td>
</tr>
<tr>
<td>7)</td>
<td>I believe we create our own opportunities</td>
</tr>
<tr>
<td>8)</td>
<td>I agree with the goals of my employer</td>
</tr>
<tr>
<td>9)</td>
<td>I’ve been “lucky in love” because I try to be a loving person</td>
</tr>
<tr>
<td>10)</td>
<td>I believe that I get what I give. But I don’t “keep score”</td>
</tr>
<tr>
<td>11)</td>
<td>It’s important for me to try new things</td>
</tr>
<tr>
<td>12)</td>
<td>I really enjoy my personal time</td>
</tr>
<tr>
<td>13)</td>
<td>I work hard, and I’m compensated fairly</td>
</tr>
<tr>
<td>14)</td>
<td>My family is a great source of pleasure for me</td>
</tr>
<tr>
<td>15)</td>
<td>I stand up for what I believe in</td>
</tr>
</tbody>
</table>

**Total Points**
Interpreting Your Score:

If you scored….

- **35 or above**: Great! Your attitude toward life is positively helping your resistance to stress.

- **27 to 34**: Your resistance to stress is high, but could be improved; look at each item, and choose a few to work on.

- **18 to 26**: Examine your habits to improve your resistance to stress. Go through the statements, and pick one to improve on each month.

- **Under 18**: If your stress level increases, you could be in trouble; take action now to change your habits. You may want to ask a professional counselor for ways to improve your resistance to stress.

*Specific Areas of Stress*

Add up the total from questions 1, 6, 7, 9, and 13. This is your stress management score. The higher it is, the more control you feel you have over your own life, and the better you can manage your stress.

Add up the total from questions 2, 3, 8, 10, and 14. This is your commitment score. The higher it is, the more you enjoy your life and are committed to it.

Add up the total from questions 4, 5, 11, 12, and 15. This is your risk score. The higher it is, the more willing you are to take risks.

All of these scores together make up your stress resistance score.
Appendix S

Mid-Term and Final Program Evaluation for the Employee
BLUE COLLAR PROGRAM EVALUATION FORM

Please rate your responses based on the following five point scales.

1) The BLUE Collar program meets my expectations.
   Strongly Disagree Disagree Neutral Agree Strongly Agree
   1 2 3 4 5

2) The instruction methods are effective.
   Strongly Disagree Neutral Agree Strongly Agree
   1 2 3 4 5

3) I value the information provided within the program.
   Strongly Disagree Neutral Agree Strongly Agree
   1 2 3 4 5

4) Is there anything that you particularly like about the program? Dislike?
   _______________________________________________________________________
   _______________________________________________________________________
   _______________________________________________________________________

5) Would you suggest any changes be done to the program?
   _______________________________________________________________________
   _______________________________________________________________________
   _______________________________________________________________________
   Additional Comments:
   _______________________________________________________________________
   _______________________________________________________________________
   _______________________________________________________________________

6) I would recommend this program to other employees. *NOTE: Only for final evaluation
   Strongly Disagree Disagree Neutral Agree Strongly Agree
   1 2 3 4 5
Appendix T

Final Evaluation of Program for the Employer
BLUE COLLAR PROGRAM EVALUATION FORM

Please rate your responses based on the following five point scales.

1) The BLUE Collar program meets the needs of this company.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

2) The methods of instruction are effective.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

3) The program will be beneficial to this company.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

4) Is there anything that you particularly like about the program? Dislike?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

5) Would you suggest any changes be done to the program?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Additional Comments:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

6) I would recommend this program to other companies. *NOTE: Only for final evaluation

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix U

Position Description
Position Description

Job Title: Occupational Therapist

Job Description: Part-time contracted occupational therapist to facilitate injury prevention and wellness program with local Cleveland area companies.

Position Qualifications:

- Licensed occupational therapist in the state of Ohio
- Registered by the National Board for Certification in Occupational Therapy
- Minimum of a Bachelor’s Degree in Occupational Therapy
- Minimum of one year of experience in industrial rehabilitation, ergonomics and/or performing jobsite analyses

Report To: Michael Milicia, OT/L, Head Occupational Therapist and Team Lead at Cleveland Clinic RTW Services

Skills and Specifications:

- Competency in performing jobsite analyses
- Competency in performing National Institute of Occupational Safety and Health lifting calculations
- Competency in performing the Rapid Entire Body Assessment (REBA)
- A certification in ergonomics training is highly recommended (Certified Professional Ergonomist (CPE)/Certified Human Factors Professional (CHFP)/Certified User Experience Professional (CUXP))

Wages:

- A competitive wage of $34.77/hr will be provided
Appendix V

Job Advertisement
Part-Time Occupational Therapist for Injury Prevention Program

The Cleveland Clinic presents:

The BLUE Collar Program (Better Lifestyle and Utilizing wellness for Employees)

A part-time position is available for an occupational therapist through the Cleveland Clinic to facilitate a work injury prevention program. The program involves a 4 ½ hour commitment each week after normal working hours to provide training and education to local Cleveland area companies in injury prevention. A competitive wage of $37.44 is provided.

Qualifications:

- Licensed Occupational Therapist in the state of Ohio
- Registered by the National Board for Certification in Occupational Therapy
- Minimum of a Bachelor’s Degree in occupational therapy
- Minimum of 1 year of experience in industrial rehabilitation, ergonomics and/or performing jobsite analyses

If interested, please send resume to:
The Cleveland Clinic
Return to Work Services
C Building—W.O Walker Center
10524 Euclid Ave.—Desk C22
Cleveland, OH 44195
Appendix X

Letter of Support
April 1, 2013

Chase Majewski
8801 Edgehill Rd.
Mentor, OH 44060

Dear Chase Majewski,

This is a letter written in support for the BLUE Collar Program that you are proposing. At Heinen’s, we have seen how injury affects the workplace. Our employees that suffer injuries usually undergo rehabilitation services in order to return to work. This is both an inconvenience for them as well as us as a company. We are left short-handed and must find coverage for our injured employee.

From your time spent with us, I have seen first-hand the effect that a program could have. In many cases, our injured employees have said that they feel their injury could have been avoided. The material provided will educate and train employees to implement basic work safety and health ideas that could help to prevent future injuries.

Our company, as would many others like it, would benefit greatly from this program. I hope that it comes to fruition for the benefit of many companies.

Sincerely,

Nick Brunkus
General Manager
Appendix Y

Additional Letters of Support
1. Howard Eberts
   - Occupational Safety and Health Administration, Cleveland area Director
   - Phone: (216) 615-4266

   Mr. Eberts is the current director of the Occupational Safety and Health Administration (OSHA) Cleveland area office. Mr. Eberts is in charge of overseeing OSHA guideline checks in the Cleveland area. A letter of support would be sought out from Mr. Eberts to display the value of the BLUE Collar Program to the workforce. The BLUE Collar Program will decrease the incidence of work injury, therefore decreasing the amount of OSHA violations.

2. Steven Beuhrer
   - Administrator/CEO of the Ohio Bureau of Worker’s Compensation
   - Phone: (614) 466-5223

   Steve Buehrer was appointed as the administrator/CEO of the Ohio Bureau of Workers’ Compensation in January 2011 by Governor Kasich. He has extensive experience with workers’ compensation, previously serving as BWC’s Chief of Human Resources. A letter of support will be sought out from Mr. Buehrer because of his influence in the working community. By having a letter from the administrator at the Ohio Bureau of Worker’s Compensation, the program gains more credence.

3. Loree Soggs,
   - President of North Shore American Federation of Labor and Congress of Industrial Organizations (AFL-CIO)
   - Phone: (216) 881-7200

   Loree Soggs is the president of the Cleveland area branch of the AFL-CIO. The AFL-CIO is a national body that assists labor unions to achieve their goals. The organization
provides support and information for union leaders, as well as provides a voice for unions at the
national level of politics. A letter will be sought from Mrs. Soggs to gain support from
Cleveland area labor unions. She provides useful resources for participant recruitment.