Thomas Halloran. THE IMPACT OF A WORKPLACE WELLNESS PROGRAM ON EMPLOYEES IN A UNIVERSITY SETTING. (Under the direction of Dr. Bhibha M. Das) Department of Kinesiology, March 2017.

The Affordable Care Act of 2010 contained incentives for worksites to develop workplace wellness programs (WWP) and employee wellness programs (EWP) (Kaspin et al, 2013). These programs have shown positive outcomes to companies in various dimensions, each independently studied. Historically, studies have examined one dimension of wellness and typically within a corporate setting. **PURPOSE:** To evaluate the effectiveness of an educational wellness intervention on physical activity and overall well-being based on the 8 dimensions of wellness in university faculty and staff. The specific aims of this study include 1) Participants will gain the knowledge and understanding of the 8 dimensions of wellness and how to incorporate the 8 dimensions into their daily lives and 2) Participants will identify areas of improvement within the 8 dimensions of wellness to create a balanced, holistic approach to wellness. **METHODS:** Employees underwent an eight-week intervention called the Employee Wellness Institute (EWI). Employees met once a week for 90 minutes. Each session highlighted one or two of the eight dimensions of wellness. Participants (N = 12, 72.7% female; 81.8% white) were university faculty and staff. Demographics were collected by a self-reported survey during the first visit and anthropometric data was collected by a trained researcher during the first and last visits. Body weight and height were collected using TANITA digital scale and SECA stadiometer. Body mass index was measured by dividing weight (kg) by the participant's squared height (m). Participants measured physical activity via pedometer (New Lifestyle 1000) and self-reported activity minutes during the entire length of the Employee Wellness Institute. Nutrition was assessed by a self-reported "red food log" tracking the number of unhealthy food items selected during the day for all of the eight weeks. Overall wellness was assessed by the

Wellness Assessment Questionnaire (University of North Dakota, n.d.). Statistical analysis utilized a paired- t test and Cohen's *d* for effect size. **RESULTS:** Within each dimension of wellness there was an average increase of 8% in Physical, 3% in Emotional, 3% in Social, 2% in Occupational, 4% in Spiritual, and both Environmental and Intellectual had the highest increase at 9% which calculated to be statistically significant (p=0.011). **CONCLUSION:** Data supports the hypothesis that employees would improve their proficiency within the 8-dimensions of wellness as well as physical activity, although not statistically significant. Within a short 8-week intervention, employee had increase their overall wellness up to 9% in some dimensions. If the employees had access to a year-round program that continuously strived to improve their wellness, or if more employees had access to such a program, the overall wellness of an entire faculty/staff of a university may be better. Thus, future research and practice efforts should be focused on implementing and evaluating year-long WWPs for university employees. Healthier employees can directly and indirectly save the employing company. Examples include lower annual health costs, decreased absenteeism, and decreased employee turnover.

The Impact Of a Workplace Wellness Program On Employees In a University Setting

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Thomas Halloran

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THE IMPACT OF A WORKPLACE WELLNESS PROGRAM ON EMPLOYEES IN A UNIVERSITY SETTING

by

Thomas Halloran

APPROVED BY:

DIRECTOR OF THESIS _____

Bhibha M. Das, Ph.D., MPH

COMMITTEE MEMBER _____

Melanie Sartore, Ph.D.

COMMITTEE MEMBER _____

Katrina DuBose, Ph.D.

COMMITTEE MEMBER _____

Dave Kemble, MA

CHAIR OF THE DEPARTMENT OF KINESIOLOGY

_____

Stacey R. Altman, J.D.

DEAN OF THE GRADUATE STUDIES

_____

Paul Gemperline, Ph.D.

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Chapter 1: Introduction

Two thirds of all premature deaths in the U.S. are due to lifestyle factors that can be changed (Myers, Sweeney, & Witmer, 2000). These factors are health habits that people consciously choose to incorporate, or unconsciously adopt for convenience within their lives. Without changing these lifestyle factors for the better, quality of life, and overall well-being can be drastically compromised. Lifestyle factors that we can change include body composition high stress, low physical activity/sedentary lifestyle, and finances/bills (Aldana & Pronk, 2001; Jacobson et al., 1996). Socioeconomic theory has shown that various aspects in the workplace are related to health outcomes (Watts, Laska, Larson, & Neumark-Sztainer, 2015). The Affordable Care Act of 2010 contained incentives for worksites to develop workplace wellness programs (WWP) and employee wellness programs (EWP) (Henke et al., 2011; Kaspin et al., 2013). These programs were intended to improve the health and well-being of their employees and lower insurance premiums for the company. These programs have shown positive outcomes to companies in various dimensions, each independently studied. Historically, studies have looked at one dimension of wellness and only within a company setting. This thesis will look at all dimensions of wellness, as well as other aspects of health, in employees within a university setting.

In order to improve overall well-being in employees, the employees must be balanced and proficient in the eight dimensions of wellness defined by Substance Abuse and Mental Health Service Administration (SAMHSA). The eight dimensions are Physical, Intellectual, Emotional, Environmental, Social, Financial, Occupational, and Spiritual (SAMHSA, 2015).

Purpose Statement

The purpose of this study was to evaluate the impact of an educational wellness intervention, Wellness Institute, on university employees' physical activity, healthy eating, and overall well-being. For the purpose of this study," physical activity" was defined as minutes spent performing moderate to vigorous activities either on the job, or outside of working hours. Heathy eating was classified by using the 'stop light' method. The 'stop light' method is a classification system that groups foods into Green, Yellow, and Red categories. Green meant healthier options and should be consumed frequently. Yellow meant higher caloric values and lower micronutrient density and should be consumed sparingly. Red meant high fats, high caloric values, and low micronutrient density and should rarely, if ever, be a part of the diet. Overall well-being was operationally defined as proficient in all 8 dimensions of wellness in their daily lives scoring each dimension of wellness above 75% of the available points in each dimension.

Specific Aims

1. Understand the effectiveness of the Wellness Institute in improving the 8 dimensions of wellness within university employees.
2. Identify areas of improvement within the 8 dimensions of wellness for each participant.

Research Hypothesis

According to previous research, the following hypothesis were tested:

1. The educational wellness intervention will improve overall wellness measured in the Wellness Assessment in employees directly following the intervention.

Significance of the Study

For many US adults, most of the day is spent in the work setting (Strickland, 2015). With such a large amount of time dedicated to employment, there may be limited time outside of the worksite to take care of employees' personal life in regards to their overall wellness. At the workplace, employees can encounter negative health factors like stress, little to poor support from supervisors and co-workers for healthy behaviors, and a physical environment that may promote obesity (i.e. unhealthy food options and sedentary desk work) (Strickland, 2015). By developing and implementing a workplace wellness program, employers can help improve the lives of their employees. In turn, this may lead to improved job satisfaction, increased employee morale, better physical and mental health, and an increase in return on investment for the employer both directly in cost, and indirectly with employee retention (Kaspin et al., 2013).

According to *Healthy People 2010,* only 6.9% of companies met the criteria of a Worksite Health Program (WHP), which stated a WHP must offer a variety of healthy incentives. These criteria include: 1) Health education programs, 2) Supportive social and physical environments, 3) Integration into the company's organization structure, 4) Resources to related programs within WHP, and 5) Health screenings (e.g. blood pressure, height, weight, BMI, body fat percentage, etc.) (Pronk, 2014).

An increase in the number of WHP, which aim to improve the health and overall wellness of those employees with negative lifestyle factors in the United States, has been observed recently (Altchiler & Motta, 1994). In a systematic review of employer-sponsored WHP, a variety of increased rates of participation were shown including companies, like Fairview Health Services, who had an increase in participation rates from 54% to 86% in just 3 years (Kaspin et al., 2013). In addition, Johnson & Johnson found an increase of 95% in employee participation to

worksite wellness programs, as well as the Eastman Chemical Company, which showed an 89% increase in employee involved in WHP (Kaspin et al, 2015). Studying an educational intervention for employees can demonstrate the effectiveness of worksite health promotions and overall employee wellness programs for worksites alike. There is a need for research in the University workplace and how a WHP could influence the faculty and staff that work there.

Definition of Key Terms:

Physical Activity- minutes spent performing moderate to vigorous activities either on the job, or outside of working hours.

Overall Well-being- balanced in all 8 dimensions of wellness in their daily lives scoring each dimension of wellness above 75% of total possible points.

Red Food- Utilizing the "stoplight method" of food choices. Red foods should be consumed rarely, if ever within an individual's diet. These foods are typically higher in total calories and lower in nutrient density.

Worksite Wellness Program- an employee centered program with the aim to educate employees on proper health, nutrition, employee resources, and company policies to maximize the employee's experience in the workplace, as well as improve the company's efficiencies. This is also known as an Employee Wellness Program, or Worksite Health Program.

Chapter 2: Literature Review

To conduct this literature review, journal articles and other reviews were collected using online databases of scientific literature. Pubmed via Medline, Ovid via Medline, and PsycINFO were all searched using keywords such including: “workplace wellness”, “wellness”, “health promotion”, “8 dimensions of wellness”, and other related tags. Articles were evaluated at first by reading the abstract and looking for key concepts and results that pertained to this literature review. These abstracts must have contained information regarding evaluating workplace wellness, benefits and limitations, as well as results providing conclusions to implementing a more effective worksite wellness program to be further evaluated for this review. After the initial reading of the abstracts, the articles were read in depth for pertinent findings that related specifically to improving workplace wellness and regarding the positive and negative outcomes of the programs.

Definitions

Companies define their wellness initiatives based on what they either have currently implemented, or strive to achieve in the near future. The Center for Disease Control (CDC) provides a broader definition of workplace wellness by stating, “Workplace health programs are a coordinated and comprehensive set of health promotion and protection strategies implemented at the worksite that includes programs, policies, benefits, environmental supports, and links to the surrounding community designed to encourage the health and safety of all employees” (CDC, 2015). This definition was meant to be an umbrella approach to all workplace wellness programs. Goetzel and Ozminkowski in 2008 defined worksite health promotion (WHP) more specifically, to include the studies targeted beneficiates, “WHP programs are employer initiatives directed at improving the health and well-being of workers and, in some cases, their

dependents"(Goetzel & Ozminkowski, 2008, p. 304). A recent survey noted that 77% of employers offering health benefits also offered a workplace wellness program (Pronk, 2014). The remaining 23% do not have a defined workplace wellness program or incentives for health promotion. Similar to company's mission and vision statements, their definitions of workplace wellness can vary depending on a company's goals and needs. To be a valid WHP program, at minimum one of many categories must be accessible to employees at any given time (Pronk, 2014; Strickland, 2015). Categories include weight loss programming, gym membership, on-site exercise facilities, smoking cessation programming, health coaching, classes in nutrition or healthy living, health screenings (e.g. body mass index, blood pressure, blood glucose), or even resources via the internet for educational purposes (Pronk, 2014). By understanding the definitions of WHP and workplace wellness programs, we can determine the differences in wellness initiatives compared to health programs. Although the concepts are similar, there are differentiates, which will be discussed later in this review.

Studies completed in social and psychological fields have determined that to consider someone "well", they should have a balance of all dimensions of wellness (Myers et al., 2000). Findings included those who were not sufficient in one dimension, were not as healthy or "well" as compared to those who were balanced in each dimension (Myers et al., 2000). The dimensions noted in these studies were Intellectual, Emotional, Physical, Social, Occupational, and Spiritual (Hettler, 1980). There are only six dimensions in Hettler's study of promoting wellness on a university campus, compared to East Carolina University's eight dimensions. In Hettler's model, the environmental dimension was combined in the social dimension, as was financial was included in the occupational. At East Carolina University (ECU), the wellness program for employees, students, and all of campus follows these same eight dimensions of wellness. It

creates the “backbone” to ECU’s approach to wellness. ECU looks at wellness in a holistic approach (Myers et al., 2000). In order to consider a person to be overall well, all eight dimensions must be included regularly in their lives. Being strong or efficient in just one category does not lead to a balanced wellbeing. In addition, that deficiency in other dimensions may have a relationship to decreased job satisfaction and health risks. This potential cause and effect is the reason this study can have an impact not just at East Carolina University, but also in the workplaces and universities settings elsewhere. Universities, corporate companies, and employers of all backgrounds are finding that workplace wellness can be a vital addition to their businesses due to the positive outcomes that are associated with workplace wellness programs (Myers et al., 2000).

Along with defining workplace wellness as a whole, these studies defined some of the top most positive and negative health issues in a work environment. The negative influences ranged from low to moderate up to moderate and high; as shown in Table 1 reproduced from the study of the relation of health promotion programs and employee absenteeism (Aldana & Pronk, 2001).

Table 1 Level of Association with Elevated Rates of Absenteeism

Risk/Program	**Strength of the Association**
Body mass index/obesity	Moderate-to-high
Hypercholesterolemia	Unknown
High Stress	Moderate-to-high
No fitness program participation	Low-to-moderate
Low fitness/physical activity	Unknown
Hypertension	Unknown
Multiple risk factors	Low-to-moderate
No health promotion program participation	Low-to-moderate

This article examined 43 other articles previously published on topics directly related to the defined health risks above. To further explain, obesity often relates to higher rates of absenteeism due to the higher rates of various diseases such as cardiovascular diseases, diabetes, and all forms of cancer. Stress from either being on the job, or throughout the daily lives of those studied correlated with rates of absenteeism because stress has a known negative impact on bodily physiological functions (Aldana & Pronk, 2001). By knowing, what health risks increase an unhealthy population in the work environment, programs could be tailored to improving those risks can be created based on the needs of the company. For example, to decrease rates of stress in employees, which was found to be a moderate to high risk factor, a program, that involved removing employees temporarily from their stress or educating those employees on how to manage that stress. This solution could reduce the incidence of stress related unhealthy habits within the workplace.

8 Dimensions of Wellness

Within all the definitions of workplace wellness, a common consensus was derived about the meaning of being well. A balanced, or a holistic approach, was agreed upon between many studies as the root to all successful programs and initiatives. In one research article, it was noted that during a focus group the participants stated a more "holistic approach" would better suit their needs and help to increase moral of the employees (Henke, Goetzel, McHugh, & Isaac, 2011). "Wellness can be defined as an active process through which the individual becomes aware of and makes choices toward a more successful existence" (Hettler, 1980). This process individuals must undergo involve balancing the 8 dimensions of wellness in their own lives. Halbert Dunn defined this pursuit as "an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable, within the environment

where he is functioning" (Hettler, 1980). Anyone who wants to become balanced in wellness, or is motivated to incorporate these dimensions must do so in their natural lives each day. Substance Abuse and Mental Health Services Administration (SAMHSA) definitions of all eight dimensions (SAMHSA, 2015) are discussed in the following paragraphs.

Physical

Studies have recognized the need for physical activity, healthy foods, and sleep were essential to be in good health. Although, Cooper and Barton (2015) found that 42% of respondents (N = 502) did not meet the requirements of daily physical activity using the IPAQ, a self-reported survey on physical activity. This study defined physical activity guidelines by using the US Health and Human Services' definition which states individuals should complete at least 150 minutes of moderate physical activity per week (Cooper & Barton, 2015). The WEMWBS, a mental well-being survey, uses a 14-item, Likert-type scale of positive mental health rating from 1 to 5. The minimum score is 14 and the maximum is 70 whereas the higher the score the better the mental well-being for the individual (Cooper & Barton, 2015). This scale was used since a previous study found a high content validity with a Cronbach's alpha of 0.89 and a high reliability of 0.83 with the survey conducted (Stewart-Brown et al., 2011). Significant differences were statistically analyzed between low, moderate, and high physical activity compared to mental well-being scores. A mean score of 46.0 (9.1) was reported for those participants who scored low on the IPAQ, while a mean score of 50.6 (8.4) was reported for participants that scored high on the IPAQ (Cooper & Barton, 2015). It correlated that those who scored higher in physical activity averaged a higher score in mental well-being.

In addition, another article studied the effect of exercise on employee neuro-cognitive performance (Wollseiffen et al., 2015). At baseline, the employees were asked to perform an

arithmetic challenge to measure decision-making performance, complete a memory challenge to measure spatial recall, and assess their current mood to their interpretation. Employees were divided into four groups: 1) Employees biked on a stationary bike ergometer at 70% their max heart rate for 20 minutes (considered moderate exercise), 2) Employees took a class of boxing exercises at different intervals (considered vigorous exercise), 3) Employee sat in a massage chair listening to relaxing sounds and music for 20 minutes (representing a relaxed/restful state), and 4) Employees continued to work through the 20 minutes (the control group). Wollseiffen et al found that just 20 minutes of physical activity increased the physical state of employees by 6.11% in the boxing group, 9.69% in the biking group, but only 1.73% in the group without a break (Wollseiffen et al., 2015). Improvement in psychological state because of exercise included a rise in the boxing group by 12.45%, 5.44% in the biking group, and 3.89% in the group without a break (Wollseiffen et al., 2015). This concluded that when employees participated in some form of exercise, the more beneficial it was for their physical and psychological wellness. Within the workplace, frequent breaks of sedentary behavior, such as prolonged sitting at a desk, can prove to be more beneficial in the long term for universities and companies alike.

Emotional

Emotional wellness includes coping effectively with life and creating satisfying relationships (Jacobson et al., 1996). Jacobsen et al. (1996) found that higher self-reported rates of stress were associated with higher rates of absenteeism from the workplace. Studying 79,070 employees from over 250 various companies, 51.83% of men were considered low stress, 40.51% were classified as moderately stressed, and 8.11% were highly stressed (Jacobson et al., 1996). Respectively, of the women studied, 44.84% were found to be considered low stressed,

42.66% moderately, and 12.49% highly stressed (Jacobson et al., 1996). To associate the levels of stress with absenteeism, each gender category was to report either zero days absent from work, 1-2 days, 3-4 days, or 5+ days. Employees were told to only report days absent due to illness-related reasons. Collectively, 30.58% of employees, both male and female, were absent from work 1-2 days, 19.17% were absent 3-4 days, and overwhelmingly 32.48% of employees were absent 5+ days (Jacobson et al., 1996). This demonstrates high levels of stress throughout the workplace can related to high levels of absenteeism when the significance value was set a

Within the study, each employee reported which life area affected stress levels to the point the employees chose to be absent. The breakdown of life areas and their respected values are shown below in Table 2 recreated from the study.

Table 2 Percent of Stress By Gender and Life Area

Life Area	Percent Men/Women (n= 79,070)	Percent Men (n=42,302)	Percent Women (n=36,768)
Work			
Low	20.8	20.7	20.8
Moderate	45.1	47.3	42.8
High	31.1	32	36.3
Finance/Bills			
Low	48.5	52.4	44.1
Moderate	33.1	33.4	32.7
High	18.4	14.2	23.2
Family			
Low	46.7	51.3	42
Moderate	38.5	38.2	38.9
High	14.6	10.5	19.1
Health			
Low	75.5	78.5	72.2
Moderate	20.3	18.6	22.1
High	4.2	2.9	5.7

Table 2 (cont.)			
Legal			
Low	94	94.5	93.5
Moderate	4.4	4.2	4.6
High	1.6	1.3	1.9
Social/Friends			
Low	85.5	87.1	82.9
Moderate	12.1	10.8	13.5
High	2.9	2	3.7
Environment			
Low	78.6	78.5	78.7
Moderate	17.1	17.5	16.6
High	4.4	4	4.7

Spiritual

Spiritual wellness involves the individual expanding the sense of purpose and meaning in their life. To be more specific, Myers et al. in 2000 defined different aspects of life tasks that create a holistic wellness model for counseling. Life task 1 was spirituality and was defined as "an awareness of a being or force that transcends the material aspects of life and gives a deep sense of wholeness or connectedness to the universe" (Myers et al., 2000, p. 252). Myers et al. (2000) defined spirituality as a broader term focusing on individuals to be aware of themselves and their personal attributes as compared to a narrow topic of religion. Included in the discussion of spirituality are positive thinking, and optimism. As concluded in previous literature, positive thinking and optimism are directly related to a positive mental state and further, a more positive well-being (Jacobson et al., 1996; Myers et al., 2000).

Similar to the researched conducted by Myers et al. (2000), there is research examining the relationship of individual's self-reported purpose of life, optimism, and sense of coherence on their perceived wellness (Adams, Bezner, Drabbs, Zambarano, & Steinhardt, 2000). Adams et

al. (2000) noted that the dimension of spirituality does not directly related to religion, but religion can deepen a person's perception of spirituality. In this study, the main purpose was to evaluate if there was a relationship between undergraduate students' optimism, life purpose, and sense of coherence with their perceived wellness.

One hundred twelve students (81% female; 81% white, 23.2 ± 5.4 years) enrolled in a health class at the University of Texas at Austin completed a survey to determine their spiritual and psychological dimensions of wellness (Adams et al., 2000). Individually, each determinant (life purpose, optimism, sense of coherence, and perceived wellness) scored separately to determine how high or low students would rate themselves. Life purpose scored had a mean of 47.8 ± 8.12 out of a possible 63 total points. Optimism had a mean of 23.9 (± 4.51) out of 32 possible points. Sense of coherence scored 62.4 (± 10.89) out of 91 points, and finally perceived wellness scored 16.5 (± 3.14) out of the potential 29 total points (Adams et al., 2000). All determinants scored above average on the respected scales separately, concluding that students felt their perception of each determinant was with the better half of spiritual and psychological wellness.

The relationship between perceived wellness and the determinants (life purpose, optimism, and sense of coherence) showed significance in the results. Using the Pearson product-moment correlation coefficients, the study resulted in the correlation of life purpose and perceived wellness at $r = .53$, optimism and perceived wellness at $r = .55$, and sense of coherence and perceived wellness having the highest correlation at $r = .66$ (Adams et al., 2000). This study concluded that their initial hypothesis that a positive relationship between perceived wellness and each determinant would have significant support (Adams et al., 2000).

Environmental

To be considered environmentally well, an individual should be in good health by occupying pleasant, stimulating environments that support well-being. Environmental wellness within a workplace may not always be the most assessable resource. It was noted in a study about worksite culture, environment, and policies that influence healthy eating and physical activity plus the barriers to those behaviors that some worksites do not influence healthy behaviors (Strickland, 2015). This creates a more difficult time for employees to adopt those healthier behaviors. This cause-and-effect relationship is why there is a lot of literature as to how WHP can positively influence not only the employees, but also the company itself. In order to study the effect of WHP, many studies conduct strictly controlled environments. Environments that require participants to partake in either education modules or fitness classes at a minimum 3 times a week as well as control the participants diet which may not be "normal" for most people.

In the study conducted by Sforzo et al. (2012), the primary research question was, would participants voluntarily utilize their supportive environment if it were offered by the company. In other words, they wanted to study how free choice would affect the willingness of participants to stick to their health regimen. The study created two test groups: 1) educational classes on health and wellness, a 25% discount card for healthy food options within the company's cafeteria, and complimentary membership to the company's fitness facility and 2) only the 25% discount card as well as the complimentary membership. The control offered none of these options. Participants were stressed they had free choice, and use of any of these options was strictly voluntary. At the end, the researchers found that on average across all participants, gym facility use was only about 1.3 times per week and the healthy meal card was used 1.5 times per week (Sforzo, Kaye, Calleri, & Ngai, 2012). Although the use of options for a healthier lifestyle were

not significant, the studied showed that there was a significant increase in moderate and vigorous activity among the employees $p < .01$ (Sforzo et al., 2012). It was also shown that those who received the educational classes, significantly increased knowledge ($p<0.01$) and significantly increased life satisfaction ($p < .05$) (Sforzo et al., 2012). It concluded that participants might not fully utilize all options when offered a supportive environment for healthier habits, but those who do voluntarily use their environment for the better typically more balanced in their personal well-being.

Occupational

Personal satisfaction and enrichment from one's work entails the meaning of occupational wellness. Job satisfaction as well as employee moral (either personal or company-wide) are common characteristics of occupational wellness. Researchers have found a relationship between wellness programs and an increase in job satisfaction plus employee moral (Cooper & Barton, 2015; Pronk, 2014).

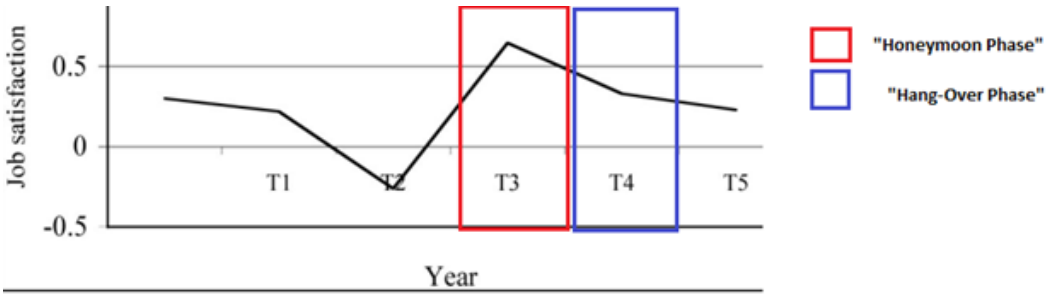
Obtaining higher job satisfaction and morale throughout employees may be an obstacle many worksites may face. Without support for a healthier workplace from supervisors or higher ups in the company, employees may find it hard to enjoy their job and find meaning within it (Strickland, 2015).

Boswell, Boudreau, and Tichy (2005) found most models of employee turnover, if not all, include job satisfaction as a primary reason for the employee leaving their company. They noted a "Honeymoon" and "Hang-Over" effect with employee turnover (Boswell, Boudreau, & Tichy, 2005). The "Honeymoon" phase of a new job is where the employee has a higher sense of optimism, being in a new position, and lacking full comprehension of all responsibilities of the

new position choosing only to see the positives. This phase creates a higher sense of job satisfaction. The "Hang-Over" phase happens when the employee typically gains more experience within the new position and begins to see all aspects, positive and negative, accompanied with the new position. The "Hang-Over" effect typically returns the employee to the original level of job satisfaction as the previous position or below. In the course of their 5 year longitudinal study, Boswell, Boudreau, and Tichy (2005) surveyed 538 high level managers (x = 45 years old; 93% male; 91% White) in executive search firms. (Boswell et al., 2005). Each respondent of the survey was in his or her original position for at minimum 3 years. Each year, over the course of 5 years, researchers sent the employees a survey via mail asking their level of job satisfaction using a 3-item scale from a previous study. The survey also asked if the employee changed positions to another company within the measured year. If the employee answered "yes" to the voluntary job change, follow up questions regarding why and their new level of job satisfaction were asked. Two-hundred and fifty-five mangers completed all five surveys at the end of the study. Respondents to complete the entire study were found to be farther from the CEO top position. This had the possible explanation that those who currently held higher positions in the corporation (closer to the CEO position) were more likely to retire before the conclusion of the study. Researchers found a relationship between job satisfaction and voluntary job change within employees. Employees who were close to changing jobs, or were in the process of changing jobs had a decrease in job satisfaction before the change (Boswell et al., 2005). After the change, there was an initial spike in levels of job satisfaction (the "Honeymoon Effect") followed by a gradual decrease in job satisfaction over time (the "Hang-Over Effect") (Boswell et al., 2005). In the recreated figure 1 below from the study conducted by Boswell, Boudreau, and Tichy, there is an initial drop in levels of job satisfaction at T2, which represents

the second survey completed by the employees. T3, in red, represents the “Honeymoon Phase” where the employee experiences a significant increase in job satisfaction. T4, in blue, represents the “Hang-Over Effect” in which the employee finds a gradual decrease in levels of job satisfaction while gaining more experience in their position (Boswell et al., 2005).

Figure 1 Honeymoon and Hang-Over Phases



To compensate for this decrease in job satisfaction, companies and universities should focus on the optimism of their employees. Optimism has shown to have a higher relationship with quality of life, and a more rounded wellness for employees.

When companies support health behaviors, factors such as job satisfaction and morale increase (Cox et al., 1981). Cox et al. (1981) recruited 392 (male = 161; female = 231) volunteers from a company and enrolled the employees in an exercise program lasting 6 months. The exercise program consisted of a 30-minute class, ranging from moderate activity to vigorous, at a frequency of 3 times a week. After the 6 months, 47% of participants expressed a more positive and less routine worksite (Cox, Shephard, & Corey, 1981) and 63% of participants expressed better personal reactions like more patience and less fatigue throughout the work day (Cox et al., 1981). The study also found that within a 10 month period around the time of the study, there was a 10% turnover rate of employees, compared to 15% for a typical turnover rate for the company (Cox et al., 1981). The decrease in employee turnover also had a positive effect

on productivity, which increased about 7.04% across the participants (Cox et al., 1981). If companies have a low turnover rate of employees, the positive outcome would be less money spent on training and recruitment. All of these benefits are associated with workplace wellness programs and initiatives.

Social

Developing a sense of connection, belonging, and a well-developed support system is the practical definition of social balance and wellness. When Wollseiffen et al. (2015) studied 50 participants (male = 27; female = 23), the participants stated after physical activity, they felt more willing to seek contact with others and personal self-confidence rose (Wollseiffen et al., 2015). Only the biking group and the boxing group saw an increase in "willingness to seek contact" as part of the psychological aspect of their survey. Both increased by 18.52% and 5.56% respectively (Wollseiffen et al., 2015). Additionally, all 3 groups, biking, boxing, and zero break, saw a rise in self-confidence by 9.42% in the biking group, 18.37% in the boxing group, and 0.50% in the zero break group (Wollseiffen et al., 2015). Comparing the difference of the levels in self-confidence between the zero-break group, and both the biking, and boxing groups; the conclusion that having a break with some type of physical activity can lead to a positive outcome for employees. It also noted within the study, the "Usual break" group, which conducted a 20-minute break, saw an increase in self-confidence by 15.45% (± 27.35%). It was concluded that those employees spent their time doing physical activity (i.e. walking the building or outside) and socializing (Wollseiffen et al., 2015). What this study showed overall was that friendly and positive social interaction can and does improve well-being throughout the workplace.

Intellectual

Intellectual wellness is defined as recognizing creative abilities and finding ways to expand knowledge and skills (SAMHSA, 2015). Finding ways to expand knowledge and skills are the foundation of most wellness programs. At Johnson & Johnson, their wellness program consists of online coaching for tobacco cessation, blood pressure reduction, weight-management, and chronic disease control (Henke et al., 2011). To evaluate how their program has worked over a 7-year period (2002-2008), they conducted a study comparing their employees to employees in companies that recently introduced a wellness program. To create a near identical baseline, Johnson & Johnson used statistical matching of employees to find matches for the control group (Henke et al., 2011). After evaluating 7 years of Johnson & Johnson's employee data, the study found that their coaching programs have reduced the use of tobacco use in their company by 3.7% and a difference of 10.6% compared to the "twin" companies (Henke et al., 2011). Other data found a 6.7% difference between Johnson & Johnson and the twin company in nutritional rates, a 6.6% difference in obesity rates, and a 4.1% difference in blood pressure rates (Henke et al., 2011).

Johnson & Johnson was not the only company to find expansion of knowledge in their wellness program to be beneficial. In the Sforzo et al. (2012) study on free choice, they conducted a 10-question quiz on their participants' (n= 80, 34 men, ≈34.5 years old) wellness knowledge, before and after the study period (Sforzo et al., 2012). Each participant was randomized into 1 of 3 groups: either educational plus access (n= 21), access only (n= 30), or the control group (n= 29). The educational plus access group had 21 participants, 30 placed into the access-only group, and 29 were control. The educational + access group was the only group to increase their knowledge from going to a 0.50 ±0.14 to 0.69 ±0.14 (Sforzo et al., 2012). The

access only group actually decreased their wellness knowledge from 0.53 ±0.10 to 0.51±0.14, and the control group decreased from 0.52 ±0.15 to 0.50 ±0.14 on a scale of 0 to 1 (Sforzo et al., 2012). Each increase represents a positive difference in group means when measuring wellness knowledge through the 10-question quiz given to participants.

Financial

To be financially well is to have satisfaction with the current and future financial situations. To be financially stressed means to be economically stressed, strained, in a hardship, or even under pressure (Kim & Garman, 2003). Financial stress can come in many forms including spending more than one would earn, not earning enough to fulfill expenses for the month, and carrying excessive credit card debt (Kim & Garman, 2003). Credit debt is an exponentially increasing problem for Americans (Drentea & Lavrakas, 2000). On average, Americans and Europeans spend between three and four times their annual salary in debt (Drentea & Lavrakas, 2000) creating an ever increasing amount of debt. In research conducted by Drentea and Lavrakas (2000), "In the case of debt, it is plausible that financial hardship and stress as indicated by incurring credit card debt, paying high interest rates, and so on may be associated with non-healthy behaviors such as excessive drinking, smoking or being overweight" (Drentea & Lavrakas, 2000). Those unhealthy behaviors can increase the amount of stress in the workplace and lead to absenteeism. Stress, whether it be from economic hardship or personal reasons, has increased rates of absenteeism over 300% since 1995 (Kim & Garman, 2003) and having an employee absent from the workplace accounts for 6% of employee's pay, which equals close to all vacation and sick days (Kim & Garman, 2003).

On the other side of financial stress is financial wellness. The adequate knowledge of personal finance facts, terminology, and management leads to a person's more proper financial

literacy (Joo & Garman, 1998). Many potential employees look for companies and businesses with financial education programs for their employees. Financial education programs within companies and universities do correlate with employee productivity, but they also help to improve employee recruitment and retention (Joo & Garman, 1998; Kim & Garman, 2003). In a self-reported survey, Joo and Garman (1998) had 271 white-collar workers rank their financial behavior in a 12-item questionnaire. Some examples of questions from the behavioral survey included "I set money aside for savings" and "I had to use a credit card because I ran out of cash". These behaviors then correlated with rates of absenteeism. Absenteeism was rated on a scale from "none", "1 to 3 days", "4 to 6 days", "7 to 9 days", "10 to 12 days", and "12 or more days" (Joo & Garman, 1998). After a regression analysis, the authors found that for every additional point, up to 48 points on the behavioral survey, there was a decrease of 0.029 units of absenteeism (Joo & Garman, 1998). This meant that assuming an average 8 hour work day, for 3 workdays, an employee could reduce their rate of absenteeism by 42 minutes (Joo & Garman, 1998). This same study looked at the relation of financial behaviors compared to the proper use of work time. Researchers found that out of those same 271 white collar workers, 50.3% of workers used work time to deal with financial obligations (Joo & Garman, 1998). Those obligations ranged from calling financial advisors or reviewing credit card statements. It was estimated that each financial obligation tended to took away at least 15 minutes of an employee's work day (Joo & Garman, 1998).

Many successful companies strategically look into their workplace wellness programs in order to evaluate effectiveness. The best programs share common characteristics such as placing the value of employee above all (Kaspin, Gorman, & Miller, 2013). One of the biggest differences is wellness initiatives overall goal is employee satisfaction and retention (Aldana &

Pronk, 2001), as well as out-come based results (Strickland, 2015). Return on Investments (ROI) is one major category that universities and companies alike, are able to evaluate for the effectiveness of the workplace wellness programs. Return on investment is a major study aspect when it comes to workplace wellness. Most companies want to know the hard numbers that contribute to saving the company money as well as increasing the overall wellness of all employees. A study conducted in 2006 found that companies spent approximately $3,615 per year on single employee coverage and around $8,508 per year for family coverages (Goetzel & Ozminkowski, 2008). Companies with workplace wellness programs in effect found an average of $3 return for every $1 spent on wellness initiatives (Naydeck, Pearson, Ozminkowski, Day, & Goetzel, 2008). Furthermore, the company of Highmark decided to conduct its own study to determine the extent of the effectiveness of their wellness program. By subtracting selective biasness, the company statistically matched individuals together to create similar intervention and control groups. Highmark then compared the average dollars spent on medical claims after 2002, when they initiated their wellness program, and dollars spent prior to 2002. They discovered that those who participated in the wellness programs on average saved the company $176.47 per person, per year with the biggest savings coming from inpatient procedures which saved the company $181.78 per person, per year (Naydeck, Pearson, Ozminkowski, Day, & Goetzel, 2008).

Return on investment can differ between companies depending on their definitions of wellness expenses. Although some companies found a range of ROI, all companies concluded that having a workplace wellness program or initiative decreased the rise in rate of health insurance premiums (Henke et al., 2011; Naydeck et al., 2008; Volpp, Asch, Galvin, & Loewenstein, n.d.). Because of the addition of workplace wellness programs and initiatives,

companies are now trending to hire new, healthier employees because they are learning that healthy employees and promoting health are cost effective for their workplace (Hettler, 1980). Combining the improvement of workplace wellness in a university and business settings, with the trend of hiring on healthier individuals allows maximal potential to decrease health care costs and increase return on investment.

Defining an exact number for ROI is difficult to account for because many other factors can influence the success of a business's wellness. Whether they include maintenance for facilities, memberships, dietitians and counseling services in expenses for a workplace wellness program can demote the measure of their returns. This is why ROI cannot be the only variable studied in the effectiveness of a worksite wellness program.

Limitations

Because WHP and workplace wellness are such general terms, many limitations are present in these studies. Limitations are restrictions to research that could have an impact on the data collected or the conclusion drawn at the end. Some articles were essay based, meaning that they provided observations and opinions about singular work environments. The essays did not compare to other studies or data collections, so the conclusions could not be included into considerations for this literature review. One study utilized surveys, interviews, and focus groups to collect the data. Although these methods statistically controlled for, and included a replicated coding system for interpretations, the participants in the study were unionized representatives. This presents a limitation because the representatives can have bias with their answers, or externally influenced to report particular answers. Despite the possibility of bias through unionized representation, this study presented a strong conclusion regarding improvements to workplace wellness programs that are applicable for other companies and universities. In order to

study workplace wellness, the design of the study has to be highly regulated to account for many variables (Aldana & Pronk, 2001). Multiple studies noted negative health habits that were consistent throughout companies. The World Health Organization has observed that smoking, alcohol misuse, physical inactivity, and poor diet are among the top five contributors to disease and injury worldwide (Goetzel & Ozminkowski, 2008; Pronk, 2014; SAMHSA, 2015). These reasons are the foundation to why employers should invest in workplace wellness programs. Although, this is not always the case. Recruitment for studies or even recruitment for participation within established workplace wellness programs is difficult. Common reasons not to participate in wellness programs or initiatives in one university study included not enough time during the workday (64.9%), not enough time before or after work (44.4%), facility expenses such as memberships or equipment costs (26.5%), lack of energy (17.4%), boredom of programs (6.2%) and fear of injury due to exercise (1.4%) (Cooper & Barton, 2015). These percentages add up to over 100% because the studied allowed participants to select more than one reason. It was important not only to know not only what health habits could lead to negative outcomes, but also what caused these habits in the work environment and why those habits may have been encouraged without the knowledge of employees or the company.

One study attempted to control for multiple limitations that usually occur within a worksite (Sforzo, Kaye, Calleri, & Ngai, 2012) wellness study. Sforso et al. (2012) wanted a study that measured the "free choice" of participants that would be controlled for in other research (Sforzo, Kaye, Calleri, & Ngai, 2012). This study found that available time was a limitation that is the most difficult to control. In addition, by giving participants free membership to a fitness center and discounted options to healthier food, the motivation for employees to increase their overall wellness was still limited. There was still an increase in employee

participation in the wellness program and the program did presume effective, but compared to research, which has strict restrictions for inclusion there was not as significant differences between groups.

Across many studies, there is a common limitation noted, selective biasness. Selective biasness states that participants who are already healthier by standards and motivated to improve their wellness due to their voluntary nature (Henke et al., 2011; Kaspin et al., 2013; Naydeck et al., 2008) produce most data collected. Employee wellness programs will have this limitation occur frequently. Employees that have the resources and the time to improve their health are usually the employees who show up to most, if not all, the wellness programs. To account for selective biasness, some research studies conducted matching programs (Henke et al., 2011; Naydeck et al., 2008). These programs used a mathematical algorithm to account for similarities between participants. Once a mathematical "twin" calculated, taking into account of demographics of each participant, the subjects then split into the intervention group and the control group. Accounting for limitation, barriers, or just obstacles for other studies will help this current study by learning what other scientists have controlled for additional variables.

Chapter 3: Methods

Participants

For the purpose of this study, participants were faculty and staff of East Carolina University (ECU). Only the faculty and staff of ECU were used because the ECU Employee Wellness Program's target population is those affiliated with ECU. In addition, only employees of ECU have the available resource of the Employee Wellness Program. This will limit the generalizability of the results to only ECU employees, but the results may show a relationship between a university's WWP and their employees' well-being. This pilot, exploratory study had a sample size of n=10.

Recruiting took place in the form of flyers sent to each department throughout the university, social media posts, e-newsletters, and emails to participants of previous programs related to employee wellness. To be included in the study, participants must have met the following criteria:

1. Be a faculty or staff member of East Carolina University
2. Be within the age range of 21-70 years old
3. Have supervisor approved time-off
4. Complete all questionnaires by the first day of the intervention

Participants were excluded from the study if:

1. They were not faculty or staff of East Carolina University
    i. Student staff or staff enrolled in ECU courses full time (9 credit hours or more)
2. Did not have approved time-off from their direct supervisor
3. Did not complete all questionnaires by the first day of the intervention

The age of the sample size was 21-70 years old to ensure employees are either full-time or part-time and not currently registered in courses at ECU. Approved supervisor time-off was required because the educational intervention took place once a week between the hours of 3pm and 5pm. These are common work hours for most faculty and staff of ECU and we did not want to put employees in situations to miss work opportunities. All questionnaires were required to be completed by the first day of the intervention to ensure any results from the pre-questionnaires were not biased by the intervention, the Employee Wellness Institute (EWI).

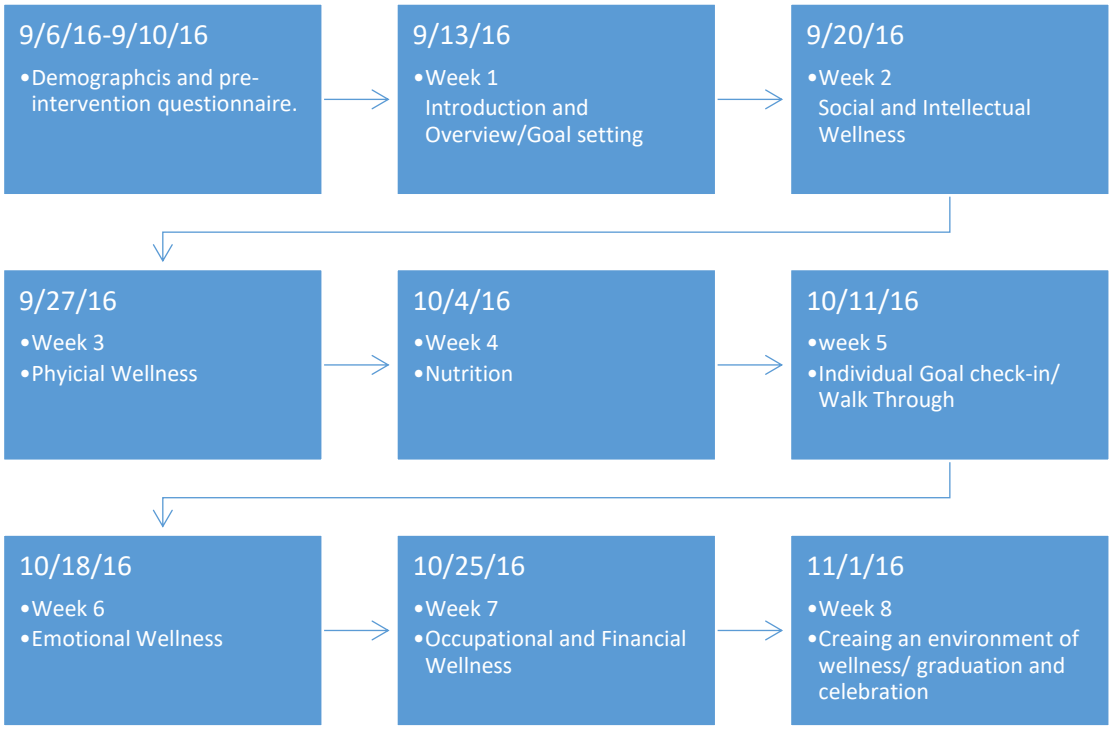
Specific Aims of the Intervention

1. Study participants will be able to identify how to incorporate Campus Recreation and Wellness' (CRW) 8 dimensions of wellness into their daily life.
2. Study participants will have knowledge and understanding of Wellness Resources on campus and in the community and will know how to access these resources.
3. Study participants will be able to demonstrate how they use goal setting to make behavioral and lifestyle changes that can lead to improved health and wellness.

Intervention

The educational intervention used was the "Wellness Institute". This is an 8-week educational model where the participants attended weekly sessions on Tuesdays between 3:30 pm and 5 pm at Minges Coliseum. Each separate week will focus on an individual topic related to one of the 8 dimensions of wellness. The breakdown of each week is as follows in Figure 2:

Figure 2



Week 1: Introduction and Overview of the Wellness Institution/ Goal setting

During the introduction, the participants received a general overview of the curriculum of the Employee Wellness Institute. They played icebreaker games to allow them to be familiar with each other and comfortable in the environment. The participants learned about the importance of having goals and setting SMART goals, which stands for specific, measurable,

action-oriented, realistic, and times (deadlines). Using the SMART acronym, participants created their own personal short-term goals for the duration of the intervention. They also completed pre-intervention questionnaires measuring their levels of wellness in each dimension.

Week 2: Physical Wellness

During the physical wellness session, the participants engaged in a presentation about how various concepts play into an individual's physical wellness, more than just physical activity. It included a healthy diet, proper sleep, and more. Participants learned a hands-on approach to incorporate physical activity into their sedentary lives using resistance bands, body-weight movements, and surrounding objects.

Week 3: Nutrition

In the nutrition session, the participants were presented with the information about how much sugar, and saturated fat are found in the common food, and drinks people ingest each day. Participants learned the difference between saturated fat and unsaturated fat, carbohydrates, and protein. They were instructed how to read food labels and look for specific "red flags" for unhealthy options. Portion sizes for each meal, as well as healthier alternatives for popular food and drink items, were discussed during this session.

Week 4: Social/Intellectual Wellness

Participants learned about the definition of social and intellectual wellness plus how the two dimensions complimented each. Each individual participated in an interactive demonstration of how various situations can be interpreted differently. The interpretations came from the personality of the individual, and can vary greatly. Participants learned that this variety can

create conflict within a workplace, but when addressed properly can create a better social understanding.

Week 5: Individual Goals/Check in/ Walk through of available resources

Participants were given the option to tour the facilities of the East Carolina University Student Recreation Center, choose an exercise option for themselves (group classes, personal training, or their own workout routine), or have an information sessions on a topic of their choice. This session also included a current evaluation the goals set on the first meeting, which involves looking at the progress towards reaching those goals and adjusting the goals, if necessary.

Week 6: Emotional Wellness

Using the "Wheel of Wellness", the participants were engaged in an activity that visually analyzed their own wellness in each dimension. The point of this activity was to show the participants of the Employee Wellness Institute how each dimension can affect other dimensions. in their own lives. It also demonstrated that they may not be as balanced in their overall wellness as they previously believed. The emotional wellness presentation also focused on stress management and how becoming imbalanced in the participant's overall wellness could cause stress emotionally, physically, and mentally. This session concluded with tips, tricks, and relevant apps available on mobile devices to aide in stress management.

Week 7: Occupational and Financial Wellness

Occupational wellness, as defined above, is the balance between one's work and life outside of work. During this session, participants interacted with a hands-on survey that was to visually represent the participants' strengths and weaknesses inside a work environment. There

was also an in-depth presentation about finding your career path, whether you like your current profession or are looking for a change. In addition, the employees learned what career resources are available for the faculty and staff who are participating in the Employee Wellness Institute.

The second half of this session included an open discussion type environment where the participants can ask questions and concerns regarding debt, credit cards, budgeting, and finances in general. A representative from the university financial services spoke to participants on the program SALT, which is an online financial resource for university faculty, staff, and students to learn and control their personal finances.

Week 8: Creating a Wellness Environment/ Celebration of completion

In the final session of the Employee Wellness Institute, participants revisited each dimension and what they represented in each individual's lives. Together, each dimension should balance an individual's overall well-being to create a healthy living environment. A healthy living environment not only includes incorporating all the dimensions of wellness together, but it also focuses on the environmental wellness specifically. Finding and creating an environment that works for the individual is a key to finding balance and continuing to incorporate all dimensions of wellness into their lives each day. Each participant reflected on their experience in the Employee Wellness Institute and wrote down what they learned for the 8 weeks in the program, their own personal definition of wellness after participating in the intervention and how they can incorporate all 8 dimensions in their lives each day, and new goals to strive for after evaluating the previous goals from the beginning of the intervention.

Each participant also completed a feedback survey to allow program staff to evaluate the positive and negative comments to plan for future Employee Wellness Institutes, as well as a

post-intervention survey comprised of the same questions the pre-intervention survey included to evaluate each individual's progress from completing the intervention.

Instruments

As each employee registered for the Wellness Institute, participants received an email invite for a one-on-one meeting to collect preliminary data. Employees had their height (inches) and weight (pounds) measured with the calculated Body-Mass index (BMI) using those values. Waist and hip circumference taken as well as other anthropometric data including identified gender, age, and level of education. The same measures were collected post-intervention with the addition of a one-on-one interview for qualitative data.

Overall Wellness

To measure the overall wellness and the change in individual wellness dimensions the Wellness Assessment (University of North Dakota, n.d.) worksheet was utilized. This worksheet included all eight dimensions measured on a 4-point Likert scale. Answers range from 1 meaning "rarely, if ever at all" to 4 "Always". Each dimension had 10 questions relating to the dimension of wellness and after completion; answers from each section were totaled together giving a score out of 40 for each dimension. Participants will immediately receive feedback based on their totals in each section relating to which dimension they are strong in and which they could improve on. Scores closer to 40 relate to the participant being stronger in that dimension and scores closer to 10 show the participant can improve in that individual section.

Examples of questions in this survey include: **Intellectual** "I view learning as a lifelong process and question my views and change them in accordance of new information". **Occupational** "I balance work with play and other aspects of my life" as an example of

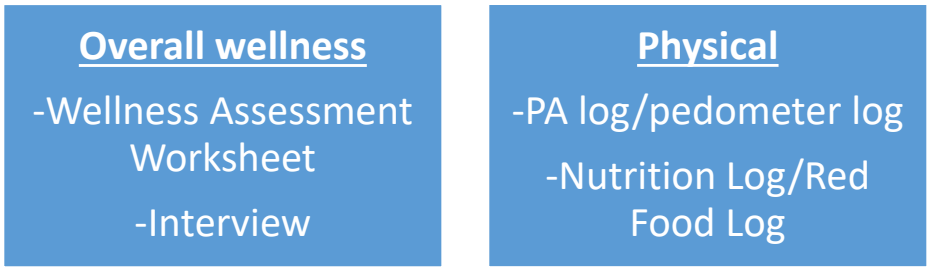
occupational wellness. **Physical** “I maintain a desirable weight”. **Emotional** “I accept responsibility of my own actions”. **Environmental** “I reduce, reuse, and recycle products”. **Social** “I have at least one meaningful relationship”. **Spiritual** “I have a sense of purpose in my life”.

Physical Activity/Nutrition

During the 8-week intervention, the participant’s physical activity and nutritional habits were measured. Simple, handwritten logs to account for time spent performing physical activity and what food the participants ate during week one through week seven. The averages from week one were used as the beginning because this was the first full week of tracking the number of steps taken per day for the participants. Week seven averages were used as the last week of tracking due to a majority of the participants tracking the number of steps taken/red food consumed during this week. The participants had the option of returning the pedometer logs at any point from the end of week 7 to the time of their personal interview in order to have all data on time.

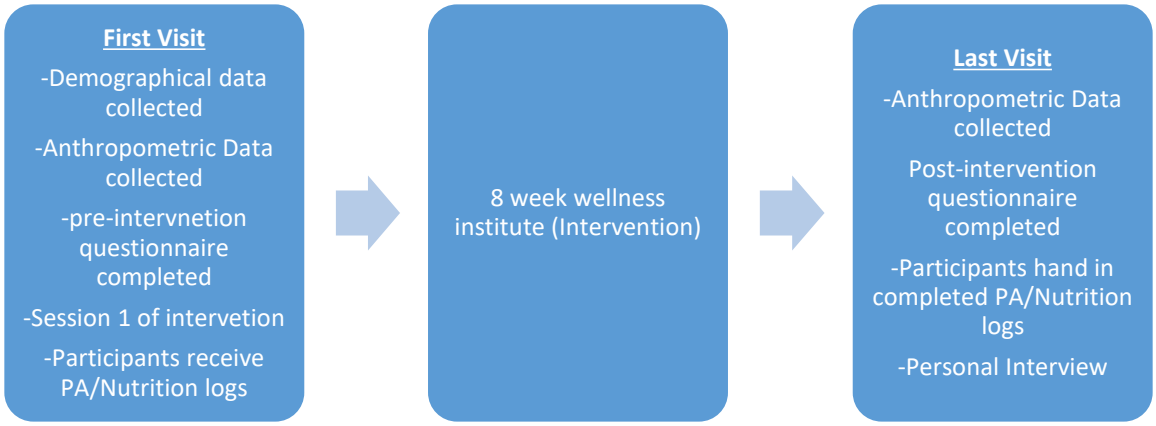
Nutrition was tracked using the “stop light” method. Green foods were “go” meaning healthiest within each food group. Green foods were lowest in fat, sugar, and calories as well as highest in nutrients such as vitamins, minerals, and fiber. Opposite of Green foods, Red foods were defined as unhealthiest and should be consumed “rarely, if ever”. These foods were highest in fat, sugar, and calories.

Figure 3 Study Measures



Procedures

Figure 4 Procedures



Statistical Analysis

We used a paired t-test to measure the pre-intervention questionnaires to the post-intervention questionnaires for average scores, and proficiency rates of each participant in each dimension. Because we are measuring each employee twice is why we used the paired instead of independent sampling t-test. Proficiency rates were defined as scoring above 75% of the total possible points in each dimension of wellness. We also measured *Cohen's d* to determine the effect size. Effect size is measured as below .04 equals a small effect size, .05-.07 equals a medium effect size, and above .08 equals a large effect size. Statistical significance was set at $p <$

.05. To account for missing data, the average number of steps taken for that specific week for each individual participant was calculated and placed where missing data was located.

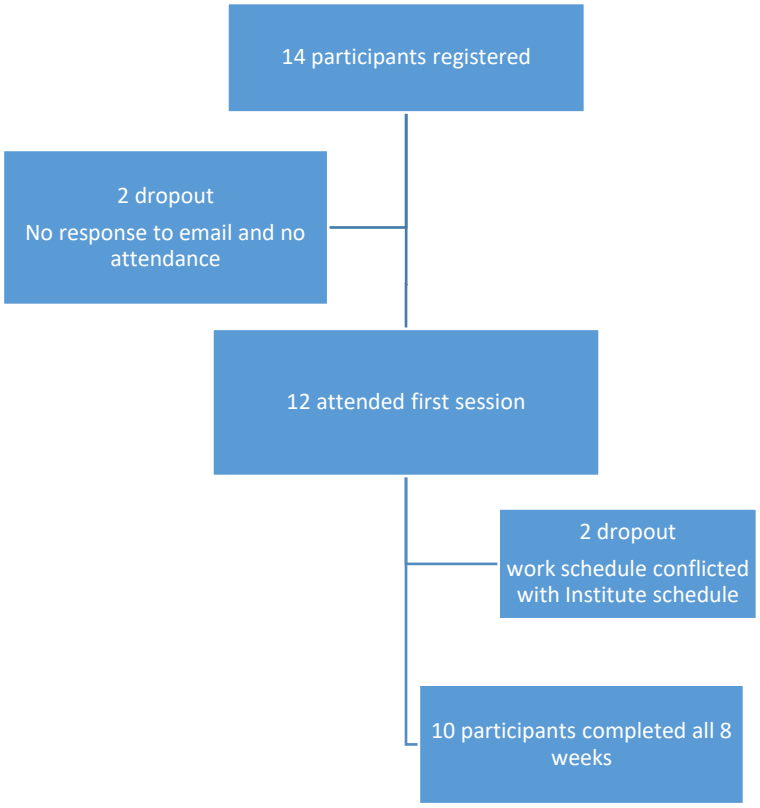
For qualitative data, one-on-one interviews were conducted with each participant. The first part of each interview included a welcome, followed by the overview of the questions to be asked. Next, ground rules were discussed and established. Finally, questions were posed to participants. Each interview was held in a private space to ensure confidentiality, lasted approximately 30 minutes, and was audio-taped. All interviews were led by a trained individual with experience facilitating discussion; the interviewer used probes to further elicit responses from participants. Researcher used an open-ended, structured question guide. As the interview progressed, the interviewer adapted the protocol to incorporate new issues or pose follow-up questions. Each individual interview was then transcribed by a researcher. Once the interview scripts were obtained, three researchers coded the data separately using a thematic analysis to determine themes for each construct of the EWI (Vaismoradi, Jones, Turunen, & Snelgrove, 2016). After each researcher provided themes for each EWI participant interview, discussion among the three researchers occurred, resulting in the themes. Finally, the researchers looked for emerging themes for the overall study.

Chapter 4: Results

Recruitment and Flow of Participants

Participants were recruited through the East Carolina University faculty and staff Listserv email lists distributed by the Office of Human Resources and the Campus Recreation and Wellness Marketing Department. Participants had two and a half weeks to register online through Cornerstone, the online registration software used by the Office of Human Resources at East Carolina University. During recruitment, participants reported problems with the use of Cornerstone. Finding the curriculum within the application and registering for each individual session became confusing for participants, which may have limited the number of participants. By the first session, 14 participants registered online. Two participants did not respond to emails nor did they attend the first session and were deemed dropouts. After the first session, two more participants dropped out voluntarily due to time commitment conflicts between their work and the Employee Wellness Institute. Ten participants attended and completed the rest of the Employee Wellness Institute. Conflicts in the time and dates scheduled, lack of supervisor support or permissible time off, and shortened marketing time frame are all typical limitations found that explain the lower number of registered participants. During the first session, demographical and anthropometric data was collected. Since two participants dropped out after the first session, the 12 original participants were included in the demographic data collection in Table 3. All participants were full-time employees with the university.

Figure 5 Cohort Table



Participant Characteristics

Fourteen participants registered for the EWI. By the first session two participants were not heard from via email, phone call, or attended the first session and were considered to have dropped out. After the first session two more participants dropped out due to scheduling conflict. 10 participants completed all preliminary and post-institute data collection. Participants were mostly female (72.7%) and Caucasian (81.8%). Participants were full-time employees (27.3% faculty and 63.6% staff). Majority of the participants received a post undergraduate degree with 54.5% earning a Masters and 9.1% a doctorate. When self-reporting their personal health histories, 36.4% noted they have used or currently use tobacco products and over half (54.5%) stated they were frequently stressed. Overall, 54.5% claimed good health, 36.4% average health,

and 9.1% bad health prior to participating in any sessions of the Employee Wellness Institute. All demographical data is described in Table 3.

Table 3 Demographics of Participants

Sex		**Person Total Gross Income**	
Male	27.3%	$25,000-$34,999	9.1%
Female	72.7%	$35,000-$49,999	27.3%
Age	43.1 (±17.1)	$50,000-$74,999	36.4%
Race		$75,000-$99,999	9.1%
White	81.8%	$100,000 or greater	9.1%
Black or African American	9.1%	**Family Gross Income**	
Hispanic	9.1%	$35,000-$49,999	27.3%
Ethnicity		$50,000-$74,999	18.2%
Hispanic or Latino	9.1%	$75,000-$99,000	27.3%
Not Hispanic or Latino	9.1%	$100,000 or greater	18.2%
Married		**Occupation**	
Married	54.5%	Management/Professional	90.9%
Not Married	45.5%	Service	9.1%
Employment Status		**Working Class**	
Full-time	100%	Staff	63.6%
Part-Time	0%	Faculty	27.3%
Children		Other	9.1%
Have Children	90.9%	**Health History**	
Do not have children	9.1%	Heart Disease	18.2%
Highest Level of Education		Lung Disease	9.1%
High school graduate/ some college	9.1%	**Use Tobacco Products**	36.4%
Undergraduate Degree	27.3%	**Stress Level**	
Graduate Degree	54.5%	Occasionally	36.4%
Professional/Doctoral	9.1%	Frequently	54.4%
		Constantly	9.1%
		Overall Health Status	
		Bad	9.1%
		Average	36.4%
		Good	54.4%

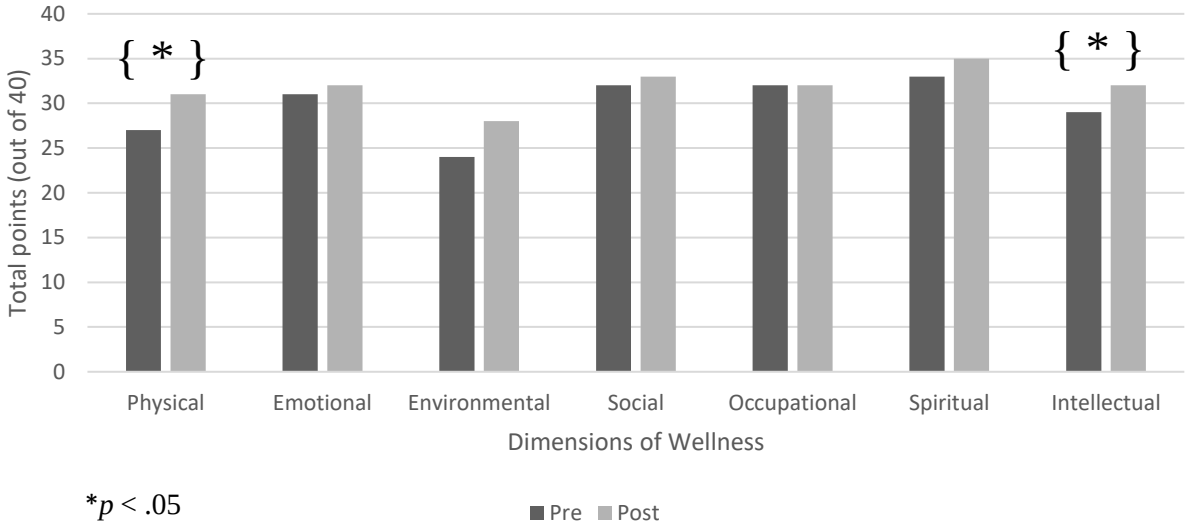
Overall Wellness

Overall wellness, as measured by the Wellness Assessment, showed improvements in all dimensions of wellness. A significant mean difference of 20 was calculated from pre-intervention proficiency rates to post-institute (t= 2.6, df= 6, p=.038) and a strong effect size of d= .85. In physical wellness, 30% of participants achieved proficiency before the institute started, while 70% achieved proficiency after the institute. Emotional wellness proficiency rate improved by 30% going from 50% of participants scored proficient pre-institute and 80% of participants reached proficient post-institute. Environmental wellness improved from 10% to 40%. Social wellness rates of proficiency remained the same at 70% both before and after the intervention. Occupational wellness improved by 10%, where participants started at 60% achieving proficiency and 70% achieved proficient after the institute. Intellectual wellness improved from 40% of participants reaching proficient pre-institute, and 80% of participants post-institute. Spiritual wellness proficiency rates declined by 10%, going from a 100% of participants scoring proficient to 90% post-institute. Table 5 demonstrates these changes. Only 40% of participants qualified by definition to be overall well, scoring above 75% in each dimension of wellness measured.

On average, across all dimensions of wellness, there was a 5% increase in overall wellness within the participants. Summarized by Table 4 below, each dimension had an average increase in scores. There was an average of 8% increase in Physical, 3% in Emotional, 3% in Social, 2% in Occupational, 4% in Spiritual, and both Environmental and Intellectual had the highest increase at 9%. The summary score of all 8 dimensions increased 2.14 (t= 3.6, df= 6,

p=.011) and a medium to strong effect size *d*= .78. This means that the group as a whole improved their overall wellness by the end of the 8-week institute.

Figure 6 Average Summary Scores of Participants



*$p < .05$

Table 6 shows the average score of each participant pre-institute and post-institute with the associated significance (p value). The highlighted scores represent the statistically significant changes.

Table 4 Average Scores

	Dimensions of Wellness							
	Physical	**Emotional**	**Environmental**	**Social**	**Occupational**	**Spiritual**	**Intellectual**	**Total**
Pre-Institute	27	31	24	32	32	33	29	207
Post-Institute	31	32	28	33	32	35	32	224
Average Percent Difference	8%	3%	9%	3%	2%	4%	9%	5%
Significance (P value)	.000*	.057	.054	.264	.153	.063	.046*	
Effect Size (Cohen's *d*)	.83	.34	.75	.26	.21	.61	.82	

*$p < .05$

Table 5 Proficiency

Percent of Participants Proficient		
Dimension of Wellness	**Pre-Institute**	**Post-Institute**
Physical	30%	70%
Emotional	50%	80%
Environmental	10%	40%
Social	70%	70%
Occupational	60%	70%
Spiritual	100%	90%
Intellectual	40%	80%

$p = .038$

Table 6 Individual Average Scores

Individual Average Scores			
Participant ID	**Pre-Institute Mean**	**Post-Institute Mean**	**Significance (*p* value)**
001	31.6	34.1	.028*
002	26.0	25.3	.526
003	26.6	30.6	.005*
004	28.9	29.9	.376
005	32.3	38.6	.017*
007	29.9	31.1	.063
008	29.9	33.1	.003*
009	30.7	32.3	.072
010	33.3	34.1	.395
011	28.0	28.3	.797

Pedometer Logs/Physical Activity

On average, participants walked 4885 steps the first week, and resumed close to a consistent number of steps weekly with 5025, 5292, 4147, 5493, 4847, 4702, and 5737 steps on weeks after respectively. Comparing the means of week 1 (beginning) to week 7 (last full week of tracking), a difference of 340.56 (t= 0.865, df= 7, p=.416). This meant that the participants, on average and as whole group, walked 340.56 more steps at the end of the 8-weeks as compared to the beginning, although not showing statistical significance. Cohen's d calculated a weak effect size, d= .09. This study also examined the difference of means from week 1 to week 4, and week 4 to week 7. Week 4 was when the natural disaster of Hurricane Matthew occurred in the area. Between week 1 and week 4, participants, on average, walked 187.4 steps more each week (t= .794, df= 7, p= .454) showing not to be statistically significant. Between week 4 and week 7, participants increased by 153.2 steps per week, on average (t= .540, df= 7, p= .606) again, not showing statistical significance. Although not statistically significant, clinically this shows that participants did increase their steps, as a group together throughout the study.

Red Foods/Nutrition

In Figure 9, on average participants decreased the amount of consumed red foods throughout the course of the Wellness Institute. The red-dotted line in Figure 9 shows an average linear decrease, although not significant statistically. Comparing the means of the participants from week 1 (beginning) to week 7 (last full week of tracking), there was a -0.57 difference (t= 1.2, df= 6, p=.272) showing to be not statistically significant. Cohen's d was calculated to be a weak effect size, d= .33.

Figure 8 Average Weekly Steps of Participants

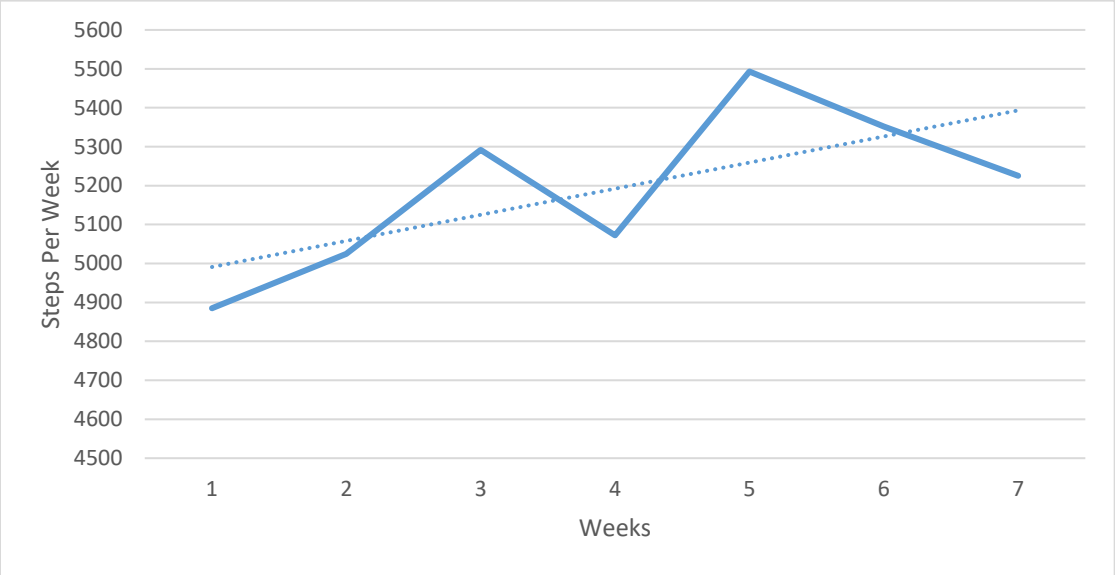


Figure 9 Average Red Foods Consumed Per Week

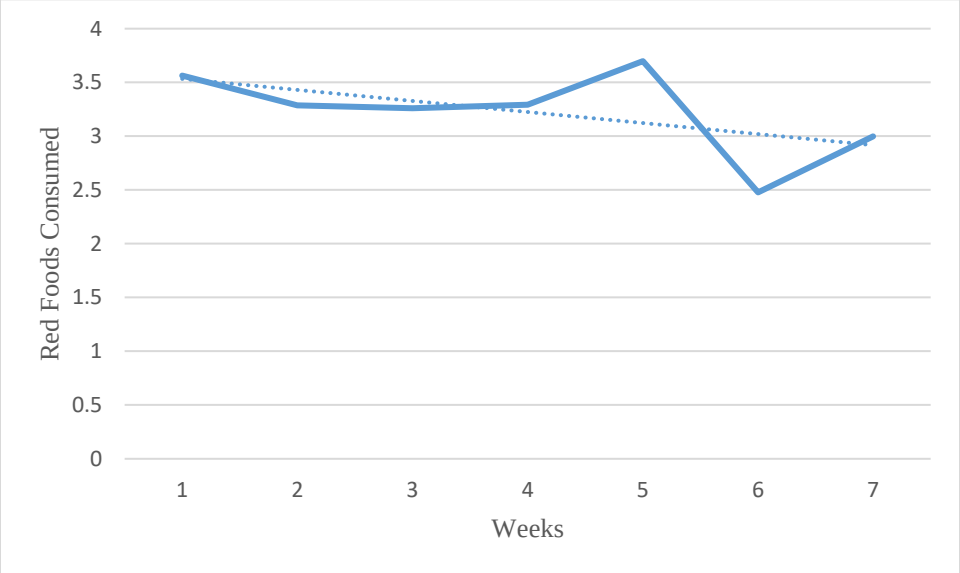


Table 6

EWI interview questions
1) What was your primary reason enrolling in the Employee Wellness Institute?
2) Which session did you learn the most from, or connect the most with? The Least?
3) What is one thing you can take away from your experience in the EWI?
4) What is one thing you would do differently/wished you could have done?
5) What is something you could pass on to a friend/coworker/family member that you learned or discovered during the EWI?
6) Were there any obstacles that you encountered during the 8 weeks that limited your learning or experience during the EWI? If any, what were they?
7) Overall how would you rate your experience in the EWI? (Very Poor-Excellent)
8) Would you recommend the EWI to a friend/co-worker? Why or Why not?
9) Did you make a behavior change because of attending the EWI? Please Explain.
10) Please share any other comment or suggestions that you may have.

Qualitative Data

Table 6 refers to the questions asked during each individual interview with the participants. The top three themes from each question, and the top three themes overall, were agreed upon by three trained researchers. In the first question that stated, "What was your primary reason enrolling in the Employee Wellness Institute?" the top three themes were 1) Improving one's self, 2) Accountability of health, 3) Curiosity. Participant 001 noted, "Just the fact it was offered and I am always looking for ways to improve myself" which demonstrated the first theme. Secondly, a common theme was the accountability of health. This was a theme since many participants notified they needed to emphasize their own health first, before taking care of other. Participant 010 mentioned "…I noted in my life in general that my own personal wellness took a back burner". They described how they were more focused on their job and others within their daily lives, that their personal health did not seem to be a priority and that needed to be corrected. Participant 003 fit within the third theme of curiosity when they stated, "Just to find out what it was all about" in their interview. Due to references from past participants, many of

the new participants heard about our Employee Wellness Institute but did not fully comprehend what they could learn which lead to our curiosity theme from the interviews.

The second question in the personal interviews was a 2-part question. It first asked, "Which session did you learn the most from, or connect the most with?" and then was followed up with the question of which session participants connected the least with. Each question had its own set of themes. Participants commented that 1) Stephan Gray 2) Physical wellness 3) Social wellness were the top answers for which sessions they connected with the most. Stephan Gray was the presenter for social wellness and participant 001 put it best when they said, "He was very dynamic. He is so interesting and it is hard not to be enthusiastic because he is so enthusiastic". This was a different response from the third theme of social wellness because some participants connected with the speaker, Stephan Gray, and some connected with the message/ topic he was speaking on. Participant 002 demonstrates the third theme by saying, "Learning the different types of personalities and different levels that everybody is at and [it] kind of helps you when you're dealing with them in public". Our physical wellness theme is summed up by participant 004, "The presenter was more encouraging in the sense of you don't have to do a specific or certain exercise [routine]. You can walk instead of taking your car, park farther away, (you know), giving those types of situations that is more practical for me". Participants stated that they disliked, or connected the least with 1) Spiritual 2) Financial and 3) Nutrition in order of most common to least, during their interviews. Spiritual wellness was a common theme among participants due to the broad definition and misconception that spiritual wellness may include religious themes. As mentioned by participant 009, "like I was disconnected and felt like [I was] slipped out. I felt like there were some real concepts that were universal [to] spiritual wellness that maybe didn't get touched on". The second theme of financial wellness seemed to have

overwhelmed some participants with the amount of information presented. “The Financial one was a little bit confusing. Just too much information at one time.” quoted by participant 002 demonstrates the theme. In regards to the theme of nutrition, as stated by participant 003, “I think I was expecting more”. Some participants may have had alternative expectations of what was to be presented during the nutrition session, which disconnected those participants from the session.

Question 3 was “What is one thing you can take away from your experience in the EWI?”. Participants discussed topics including 1) Interconnectedness 2) Taking time for yourself and 3) Continuing education during their interviews on question 3. Many participants believe they found a better sense of balance or interconnectedness from going through the Employee Wellness Institute. Participant 003 mentions, “it is not just my health. It’s a puzzle” and participant 008, “that every part of my life is interconnected”. Participants learned that balance came from all 8 dimensions and wellness became more than just exercise and diet. Along the lines of interconnectedness, taking time for yourself was a popular learning outcome. Participant 010 noted that making time for their self had quite the difference in productivity and stress relief. They said, “I could pause and think about my own personal wellness and not be clouded by [you know] my professional responsibilities or obligations”. Participant 009 was able to organize their life more. The continuing education helped 009 have specific focus for day-to-day tasks. They claimed, “I had trial and error through my life (and now I have) ways to be more successful with, based on what I work well with”.

Question 4 asked if the participants thought any changes could be made to the Employee Wellness Institute, and if so what would they have done differently. This question’s intent was to be open-ended in the definition. Participants could answer if they would want to change anything to the structure or content, in their personal experience, or internally motivation. Top answers

were 1) Attend more sessions, 2) have EWI be more interactive, 3) More concrete behavior changes. One of the limitations to the study, which will be discussed more in the discussion, was a scheduling conflict with employees. Because there were different departments and employees in the EWI, each participant's schedule was different. Employees believed they could have experienced more out of the EWI if they were available for 8 sessions. Participants enjoyed the physical wellness and social wellness sessions because those sessions included an interactive session or game. Most of the presenters had a PowerPoint presentation to go along with the material being addressed, which led the participants to want more activity in the class. A few participants stated they would like a more permanent behavior change to arise from their time in the EWI. These participants were looking for weight changes, negative habit changes, and permanent solutions. After discussing their specific expectations with the participants, it was concluded that these expectations were longer-term goals that needed more time to accomplish than an eight-week program could provide.

Part of the experience in EWI is the ability to pass along information to friends and coworkers. In question 5 of the interview, we aimed to discover if the participants were able to educate others on some topics they learned when we asked, "What is something you could pass on to a friend/coworker/family member that you learned or discovered during the EWI?" Similar to question 3, the theme of connectedness and balance was at the top followed by educational pieces, then self-reflection/being self-aware. Participant 003 mentioned balance twice in their response, "You got to find balance" and "finding balance" were two straightforward answers during their interview. Various educational pieces were recalled and passed along to coworkers from participants. A commonly shared education piece was from the nutritional session. The presenter demonstrated an easier trick to evaluating the healthy nutrients when reading nutrition

labels. The trick centered on the amount of fat within the item. The nutritionist stated for every 100 calories an item is, there should be no more than 1 g of total fat. For example, a 300-calorie item should have no more than 3 grams of fat. Many participants noted this as easy to remember and were able to implement it in their decision-making process after the session.

Question 6 wanted to examine if participants had a personal barrier or environmental barriers to their learning experience. The biggest barrier was the natural disaster of Hurricane Matthew hitting the east coast. This prevented the EWI from formally meeting one week and restricted the participants from outside activities and safe environments. Also, as mentioned earlier, scheduling conflicts created barriers between participants. Participants felt they missed important information when having to prioritize professional obligations before the EWI. The last theme for question 6 was personal health barriers. These varied from the common cold limiting participants to barriers that are more personal whether they were internal or external.

Question 6 referred to the participants' overall experience and question 7 addressed if the participants would recommend the EWI to others. Both answers had one common theme. Participants thoroughly enjoyed the EWI and rated their experience as "excellent" and participant would recommend the EWI to others.

As part of the interview, we wanted to learn if the participants made a behavior change as a result of the EWI. Physical habit changes were the first common theme. These changes included more physical activity and better sleep habits. Participant 005 states, "It has been a few years [since] I have been into a routine of going [to the gym]. Last week I got back on track of going 2-3 times a week". Participant 009 demonstrated the theme of motivation clearly, when s/he discussed "It solidified the goal setting and getting started". The theme of motivation went beyond incorporating exercise into the day. Some participants were motivated to make other

behavior changes and were making small steps to achieve those goals. Participant 004 mentioned, “I have definitely taken into consideration the moving aspect and the wellness coach, being aware of moving”. The described being more aware of how little they move throughout the day currently. Many other participants also became more aware of balance, connectedness, sedentary behavior, or even how little they focus on themselves. This is where the last theme of becoming more aware/ proactive was derived from.

After completing each individual question, some themes were reoccurring and analyzed into overall themes for the entire population of the study. The first overall theme was the interconnected of health. The common statement of balance or interconnectedness came about often and participants realized that being well meant more than looking at their diets, physical activity, and sleep. Self-care was the second overall theme. Self-care arose from participants turning the focus from looking to help others to prioritizing their own health first. Participant 004 stated it best by saying, “The biggest thing was taking time for myself. I feel like in the day I’m [a parent] in the morning, then I am an employee during the day, the once work is over I am a [parent] again”. This same participant also stated “If you do not take time for yourself, you probably cannot take care of others.” The final overall theme was positive environment/social interactions. To best explain this theme, participant 001 clarifies “I looked forward to it. Getting out of the office, going over there, getting to hear about something else. Learning something new, you know that would hopefully positively impact me”. Many participants found the environment created to be welcoming and encouraging.

In the end, all participants made statements regarding their enjoyment throughout the entire EWI. They all claimed to recommend additional co-workers to participant in future EWI. Participants were able to learn, grow, and develop new skill sets during their time in the EWI and

many were able to pass on lessons learned. By setting goals, and working as a team, participants were able to accomplish and learn what they sought out to in the beginning of the EWI.

Chapter 5: Discussion

Overall wellness, which was defined as proficient in each dimension of wellness above 75%, showed that most participants improved their personal wellness assessment scores by participating in the EWI and some participants significantly improved in their overall scores (N= 4). In each dimension of wellness, rates of proficiency increased, minus spirituality which decreased. The improvements support the idea that participants learned and understood each dimensions of wellness separately. Both physical wellness and intellectual wellness had the greatest increase in the number of participants achieving the mark of proficiency with an increase of 40%. This increase corresponds with the personal interviews when participants mentioned they connected the most and learned the most from both dimensions of wellness. To further breakdown the changes in each dimension of wellness, on average, the participants improved between 2%-9%. Statistical significance shows there was a positive impact on employees who participated in the EWI. Also, clinically these numbers can show a WWP can be beneficial to employees, even in the short time frame of 8-weeks. If the employees had access to a year-round program that continuously strived to improve their wellness, or if more employees had access to such a program, the overall wellness of an entire faculty/staff of a university may be improved. In the study, comparing Johnson & Johnson's employee wellness program to sixteen other companies conducted by Henke et al. in 2011 compared data from the period of 2002-2008 the company was able to save more money per employee each year the program was continued. At ECU, for each year there is a WWP, there is an increased chance of a positive impact on employees and in return, the university itself.

On average, participants maintained their level of activity measured in steps taken per day. Most participants increased their averages between weeks 2 and 3 of the EWI although not

statistically significant, the data suggests it may be clinically significant. These increases of activity could be explained by the motivation of each session. Week 2 discussed physical wellness while week 3's topic was nutrition. Participants learned different ways to incorporate physical activity and exercise into their daily lives with simple tricks or small 5-10 minute breaks. As mentioned in the personal interviews, some participants decided to enroll in the EWI to improve their health; either through a healthier diet, increased exercise, or both. Increased motivation could also be explained by the physical tracker itself. Studies show that when first introduced to a pedometer, or other fitness tracker, the participant has a physical reminder to increase steps/movement throughout the day (Snyder, Colvin, & Gammack, 2011). During week 4 of the institute, Eastern North Carolina experienced the devastating effects of Hurricane Matthew. Due to the time frame of the storm, as well as the flooding the area experienced for upwards of a week after, participants could not find a safe area to walk or exercise. Roads were swept away from intense flooding. Homes were destroyed, and debris covered most of the area cancelling work for most. This disaster also accounted for the minimal amount of time participants could dedicate to increasing physical activity. When comparing the first 4 weeks to the last 4 weeks, participants increased their steps more in the first 4 weeks. This finding could be explained by session 2 and 3 where the participants covered physical wellness and nutrition. Also, the effects of Hurricane Matthew on the environment may have created a lack in motivation for participants after a week of decreased activity. A positive increase was found from week one of the EWI to week seven, although not statistically significant. Based on previous literature, even a small increase of physical activity can have positive physical, cognitive, and social wellness improvements (Wollseiffen et al., 2015).

Red foods, on average, declined throughout the 8 weeks in the institute. As mentioned previously, many participants initially registered for the EWI to learn about nutrition and hopefully improve their health through a more nutritious diet. The nutrition session was scheduled early within the EWI to help motivate those registered to 1) stay motivated in the EWI by offering a popular session earlier but also 2) to educate the employees in a healthier diet to accompany the more holistic approach later in the weeks. The decrease in red foods logged could be explained by a simple trick the presenter offered that many participants remember and passed on to other coworkers and friends. The trick regarded properly reading food labels. For every 100 calories in each serving of the food, there should be no more than 1 gram of fat. This relates to a previous study conducted by Christoph, Ellison, and Meador in 2016 where college students were found to prefer number of calories, fat, and protein within a food option when reading food labels. After a simple calculation, participants could analyze if exampled food labels could be considered healthier options or not. When asked during the interviews if there were any sessions the participants connected with, some stated that this lesson helped with the decision if there was a better option for snacking or for meals.

In the qualitative data interconnected health, self-care, and a positive environment/social interaction were the highest rated themes agreed upon by 3 coders. Interconnected health ranked the highest among participants after completing the 8 weeks of the EWI. Many participants found that all 8 dimensions of wellness connected and required a balance between all dimensions. Our holistic approach to wellness helped employees understand that it may not have been entirely a diet/nutrition issue effecting their health. Myers et al. (2000) defined wellness in their study as “a way of life oriented toward optimal health and well-being in which body, mind, and spirit are integrated by the individual to live more fully within the human and natural

community". Body, mind, and spirit are working together as one to obtain the person's highest well-being per their definition. As participants discovered this lesson for themselves, many of them changed their personal definitions of wellness. This is where the participants started to understand that wellness was truly a balance between aspects in their daily lives. Participants said that if they did not focus on their own health and wellness first, they could not help others around them. This lead to the second theme defined as self-care. Priority went first to themselves, then to others. During the interviews, more than one participant noted they attempted to help others and always offer a hand to assist in tasks. This created additional stress on the participant creating a domino effect on their personal wellness. Several times employees noted that once they focused on themselves, and took their own wellness into perspective first, they could assist others in finding the dimension of wellness they may have needed improvement. The third theme discussed was a positive environment and social interactions. Employees were motivated to attend the EWI because they enjoyed the positive environment created when the participants had the same goal in mind; to improve one's health and wellness. They enjoyed and learned more from hearing the perspective from employee in other departments on campus. This outside perspective gave employees the reassurance that they were not alone in this quest for an improved wellness, as well as in daily stress that taxes our lives. Participants mentioned they would recommend the EWI to others solely for the positive environment and outside social aspect. Similar to Wollseiffen et al. (2015), employees gave positive feedback and stated the positive and social environment helped to improve their overall wellness, as well as their day to day emotional wellness.

Strengths, Limitations, and Future Research

One major strength of this study was the inclusiveness of all 8 Dimensions of Wellness (SAMHSA, 2015). This study was able to examine the impact of an employee wellness program in all aspects of one's health and how each aspect interacted with another. This study was also able to look at physical activity, nutrition, and overall wellness. With a multidimensional approach, the study was able to capture a better picture of how the current employee wellness program can affect the employees that work for the university.

Multiple limitations presented during this study. First, the sample size of the study was relatively small. With only 10 participants completing the entire EWI, it is hard to generalize the results for the entire university. Future studies could be conducted in each department which would allow for more employees to participate, as well as discover strengths and weaknesses of each department.

Additionally, this study relied on self-reported logs for data collection excluding the pedometers for physical activity. Without a subjective analysis, results were left to the interpretation of the participants. Similar research could be conducted using additional instruments of measurements (i.e. heart rate monitors) which could be analyzed for heart rate variability, level of physical activity completed, and sleep. Also, longitudinal financial analysis would assist in support for an employee wellness program. Data collection for return on investment within employee wellness and yearly medical expenses paid by the university would strengthen the analysis of the impact of the current employee wellness program.

Along the lines of additional measurements, this study did not measure job satisfaction or employee morale. Increased job satisfaction and morale may lead to decreased employee

turnover. According to Boswell et al. (2005), employee job satisfaction was the leading cause of employee turnover. Employee wellness programs have been found to increase employee job satisfaction, leading to the employee feeling more for filled within their current position (Cooper & Barton, 2015; Pronk, 2014).

Public Health Implications/Conclusion

Adults in the US typically spend most hours during the day in the work setting, which exposes those employees to negative health factors like stress, unhealthy food habits, and excess sedentary behavior leading (Strickland, 2015). Unhealthy employees can directly and indirectly cost companies in terms of absenteeism, medical expenses, lack of productivity, and time spent on-boarding new employees (Kaspin et al., 2013). Employee wellness programs have been shown to reduce yearly medical expenses within companies (Naydeck et al., 2008), increase a positive social environment (Jacobson et al., 1996; Wollseiffen et al., 2015), and increase physical activity and mental well-being (Cooper & Barton, 2015). East Carolina University utilizes the 8 Dimensions of Wellness (SAMHSA, 2015) as a holistic approach to student and employee wellness. This study examined the initial impact the current Employee Wellness Program has on employees during an eight-week intervention. This study found that there was a significant positive impact on employees after participating in the Employee Wellness Institute. Overall wellness within participants and proficiency rates of the participants both had positive increases supporting the first hypothesis. Physical activity was found to increase, although not significant. With data supporting an increase of overall wellness, increased proficiency in the eight Dimensions of Wellness, increased physical activity, and decreased red food consumption (unhealthy food options), there is a need for a full-time employee wellness program. By being

able to reach out to more employees across all departments and colleges, this program has the potential to make East Carolina University the gold standard for Employee Wellness.

Wellness Assessment

Circle the number that applies to you for each statement. Then, total up the number for each of the 4 columns. Write the sum of all your totals for each column in the light gray box on the right of the chart. That number is your score for that dimension.

	PHYSICAL	Rarely, if Ever	Sometimes	Most of the time	Always	
1	I maintain a desirable weight.	1	2	3	4	
2	I engage in vigorous exercises for over 30 minutes a day (i.e. brisk walking, cycling) up to 5 times a week and strengthening exercises 2 or more days a week.	1	2	3	4	
3	I get 7-8 hours of sleep each night and awake feeling refreshed.	1	2	3	4	
4	I listen to my body; when there is something wrong, I seek professional advice.	1	2	3	4	
5	I abstain from drug abuse both over the counter (OTC) and illicit.	1	2	3	4	
6	I responsibly use alcohol. (i.e. designating sober drivers and avoiding binge drinking).	1	2	3	4	
7	I examine my breasts or testes on a monthly basis.	1	2	3	4	
8	I protect my skin from sun damage by using sunscreen, wearing hats, and/or avoiding tanning booths and sun lamps.	1	2	3	4	
9	I eat at least 5 servings of fresh fruits and vegetables daily and drink water regularly.	1	2	3	4	
10	To minimize the risk of spreading sexually transmitted diseases, contracting sexually transmitted diseases and preventing unwanted pregnancy I either abstain from sexual behavior or I use proper protection such as condoms or dental dams.	1	2	3	4	
	TOTAL					

	EMOTIONAL	Rarely, if Ever	Sometimes	Most of the time	Always	
1	I'm able to ask for assistance when I need it, from either friends and family, or professionals.	1	2	3	4	
2	I am able to recognize and manage the different stressors in my life.	1	2	3	4	
3	I accept responsibility for my own actions.	1	2	3	4	
4	When I am angry, I try to let others know in non-confrontational and non-hurtful ways	1	2	3	4	
5	I try to avoid chronic worry and I am not usually suspicious of others.	1	2	3	4	
6	I feel good about myself and believe others like me for who I am.	1	2	3	4	
7	I am flexible and adapt or adjust to life's challenges in a positive way.	1	2	3	4	
8	I can express all ranges of feelings (i.e. hurt, sadness, fear, anger, and joy) and manage related behaviors in a healthy way.	1	2	3	4	
9	I learn from my mistakes and try to act differently the next time.	1	2	3	4	
10	I do not let my emotions get the better of me and I think before I act.	1	2	3	4	
	TOTAL					

	ENVIRONMENTAL	Rarely, if Ever	Sometimes	Most of the time	Always	
1	I am concerned about environmental pollution and actively try to preserve and protect natural resources.	1	2	3	4	
2	I report people who intentionally hurt the environment.	1	2	3	4	
3	I reduce, reuse, and recycle products.	1	2	3	4	
4	I live with the awareness of wholeness and the interconnectedness of all living systems.	1	2	3	4	
5	I use both sides of the paper when taking class notes or doing assignments.	1	2	3	4	
6	I have adopted water saving habits (i.e. I try not to leave the faucet running too long when I wash dishes, brush my teeth, shave, or bathe).	1	2	3	4	
7	I participate in campus events that help my community. (Food drives, fundraisers, planting trees, disaster relief, Habitat for Humanity).	1	2	3	4	
8	I spend time outdoors enjoying nature.	1	2	3	4	
9	I use ecologically friendly products (i.e. eco-friendly cleaning supplies, organic products, energy efficient appliances).	1	2	3	4	
10	I walk, bike, use public transportation or carpool.	1	2	3	4	
	TOTAL					

	SOCIAL	Rarely, if Ever	Sometimes	Most of the time	Always	
1	I am involved in at least one university or community group.	1	2	3	4	
2	I maintain a network of supportive friends/family/social contacts.	1	2	3	4	
3	I have at least one meaningful relationship.	1	2	3	4	
4	I respect the diversity of others (i.e., race, ethnicity, religion, gender, ability, or sexual orientation).	1	2	3	4	
5	I give priority to my own needs by saying 'no' to others' requests of me when applicable.	1	2	3	4	
6	I participate in a wide variety of social activities and enjoy being with people who are different than me.	1	2	3	4	
7	I try to be a "better person" and work on behaviors that have caused problems in my interactions with others.	1	2	3	4	
8	I have someone I can talk to about my private feelings.	1	2	3	4	
9	I consider how what I say, might be perceived by others before I speak.	1	2	3	4	
10	I give and take equally in cooperative relationships.	1	2	3	4	
	TOTAL					

	OCCUPATIONAL	Rarely, if Ever	Sometimes	Most of the time	Always	
1	I balance work with play and other aspects of my life.	1	2	3	4	
2	I take advantage of opportunities to learn new skills which will enhance my future employment possibilities.	1	2	3	4	
3	I know what skills are necessary for the occupations I am interested in.	1	2	3	4	
4	I strive to develop good work habits. (Examples: punctuality, dependability, and initiative).	1	2	3	4	
5	Enjoyment is a consideration I use when choosing a possible career.	1	2	3	4	
6	I work effectively with others.	1	2	3	4	
7	I am developing the necessary skills to achieve my career goals.	1	2	3	4	
8	I have confidence in my job search skills (resume writing, interviewing, etc.).	1	2	3	4	
9	I have explored different career options.	1	2	3	4	
10	I know where to find student employment at the University of North Dakota	1	2	3	4	
	TOTAL					

	SPIRITUAL	Rarely, if Ever	Sometimes	Most of the time	Always	
1	I have a deep appreciation for the depth of life, death and understanding universal human connection or consciousness.	1	2	3	4	
2	I recognize that there are many spiritual paths and that every spiritual tradition recognizes and teaches basic precepts or laws of wise and conscious human conduct while seeking qualities of altruism, optimism, hope and forgiveness.	1	2	3	4	
3	I integrate my "spiritual practice" within everyday life of work, family and relationships.	1	2	3	4	
4	I believe life is a precious gift that should be nurtured.	1	2	3	4	
5	I take time alone to think about what's important in life - who I am, what I value, where I fit in, and where I'm going.	1	2	3	4	
6	I have faith in a greater power, be it a God-like force.	1	2	3	4	
7	I work for peace in my interpersonal relationships, in my community, and in the world at large	1	2	3	4	
8	I have a belief system (e.g., spiritual, atheist, religious) and my actions are guided by my own beliefs, rather than the beliefs of others.	1	2	3	4	
9	I have a sense of purpose in my life.	1	2	3	4	
10	I utilize campus resources to improve my well-being and take time for spiritual growth and development (i.e. reflecting and meditating).	1	2	3	4	
	TOTAL					

	INTELLECTUAL	Rarely, if Ever	Sometimes	Most of the time	Always	
1	I view learning as a lifelong process and question my views & change them in accordance with new information.	1	2	3	4	
2	I listen to ideas different from my own and constantly re-examine my judgments on social, cultural, age, gender, religion, sexual orientation, race, disability, national origin, ethical, and political issues.	1	2	3	4	
3	I appreciate and explore the creative arts of literature, theatre, dance, music and expressive art.	1	2	3	4	
4	I seek opportunities that challenge my critical thinking skills.	1	2	3	4	
5	I keep informed about social, political and/or current issues.	1	2	3	4	
6	I watch educational programs on television every week, (News, political discussions, documentaries, public TV, or the Discovery channel).	1	2	3	4	
7	I learn about different topics that interest me from books, magazines, newspapers, and the Internet.	1	2	3	4	
8	Before making decisions, I gather facts.	1	2	3	4	
9	I know about available campus resources in my area of study	1	2	3	4	
10	I know how to access academic resources when necessary.	1	2	3	4	
	TOTAL					

Personal Wellness Checklist

Write in your scores from each of the dimensions and compare it to the ideal score. Which areas do you need to work on?

DIMENSION OF WELLNESS	IDEAL SCORE	YOUR SCORE
PHYSICAL	40	
EMOTIONAL	40	
ENVIRONMENTAL	40	
SOCIAL	40	
OCCUPATIONAL	40	
SPIRITUAL	40	
INTELLECTUAL	40	

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EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
4N-70 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** · **www.ecu.edu/irb**

Notification of Amendment Approval

From:	Social/Behavioral IRB
To:	Thomas Halloran
CC:	Bhibha Das
Date:	12/20/2016
Re:	Ame1_UMCIRB 16-000943 UMCIRB 16-000943 The Impact Of a Workplace Wellness Program On Employees In a University Setting

Your Amendment has been reviewed and approved using expedited review for the period of 12/20/2016 to 7/12/2017. It was the determination of the UMCIRB Chairperson (or designee) that this revision does not impact the overall risk/benefit ratio of the study and is appropriate for the population and procedures proposed.

Please note that any further changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. A continuing or final review must be submitted to the UMCIRB prior to the date of study expiration.The investigator must adhere to all reporting requirements for this study.

Approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

The approval includes the following items:

Document	Description
Employee Wellness Interview Questions(0.01)	Interview/Focus Group Scripts/Questions
updated SURVEY Sample Cover Letter 12 1 16.docx(0.04)	Consent Forms

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

IRB00000705 East Carolina U IRB #1 (Biomedical) IORG0000418
IRB00003781 East Carolina U IRB #2 (Behavioral/SS) IORG0000418