

WORKSITE WELLNESS CULTURE:
AN ASSESSMENT OF THE NEEDS AND INTERESTS OF THE FACULTY AND
STAFF OF A MID-WESTERN STATE UNIVERSITY

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Tara Louise Roberts

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WORKSITE WELLNESS CULTURE:
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By

Tara Louise Roberts

The Supervisory Committee certifies that this *disquisition* complies with
North Dakota State University's regulations and meets the accepted
standards for the degree of

MASTER OF SCIENCE

SUPERVISORY COMMITTEE:

Donna Terbizan
Chair

Bryan Christensen

Dean Gross

Approved:

04/23/2014
Date

Margaret A Fitzgerald
Department Chair

ABSTRACT

The purpose of this study was to evaluate the wellness culture of a mid-western university and to identify the health needs and interests of the faculty and staff employed along with current awareness and use of wellness benefits provided to them.

An electronic questionnaire addressing awareness of wellness benefits, participation in and utilization of the wellness benefits, wellness program interests, perceived support from leadership and the current wellness culture on campus was sent to faculty and staff over a 4-week period. 433 faculty and staff responded to the questionnaire (16.7% of average population).

Knowledge of their eligibility for the current wellness programs was fair but utilization was low. An interest in wellness programs was evident, but both leadership and cultural support appear to be lacking on campus.

The data collected provide support for further research and a proposal to leadership at the university to invest in an employee wellness program.

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Most of all, I would like to thank my family, husband and children for their sacrifices, patience and support over the past few years.

PREFACE

“Wellness programs are something we do with and for employees, not something we do to them” (Hunnicut, 2008).

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LIST OF ABBREVIATIONS

WELCOA.....	Wellness Council of America
RAND.....	Contraction of the term Research and Development
CEO.....	Chief Executive Officer
US.....	United States

CHAPTER I. INTRODUCTION

In 2009, the North Dakota Department of Health, Blue Cross Blue Shield of North Dakota, and the Dakota Medical Foundation partnered to form the North Dakota Worksite Wellness initiative. Their charge was to increase the number of worksite wellness programs provided by North Dakota businesses and organizations.

(<http://www.ndworksitewellness.org/about>). The following statistics have been revealed within research conducted through the initiative:

- The Milken foundation estimates a \$2.1 billion loss annually in North Dakota due to lost workdays and decreased productivity.
- Modifiable lifestyle choices cost North Dakota more than \$550 million annually in medical expenditures.
- More than 67% of our residents are overweight or obese.
- Physically active people in North Dakota can save up to \$500 per year in medical costs.
- Nearly 75% do not get regular daily exercise.
- According to an Easy Carolina University health calculation tool, physical inactivity is costing North Dakota \$990,448,191. This is made up of \$136,902,191 in medical care costs, \$2,128,435 in Workers' comp costs, and a staggering \$841,418,191 in lost productivity.

An estimated \$49,022,411 could be saved if even 5% of North Dakotans became more physically active (<http://www.ndworksitewellness.org/whyworksite/facts.htm>).

Employers have access to their employees for the majority of their day, and therefore, have the perfect opportunity to provide education and influence on healthy decision making

skills. Literature in this area provides significant medical and economical data in support of worksite wellness programs. “Literature has convincingly demonstrated that employee health risk behaviors are associated with increased healthcare costs, and that a reduction in these behaviors is associated with reduced healthcare costs and absenteeism” (Sherman, 2002, p. 102).

The Wellness Council of America (WELCOA) is a national non-for-profit organization established in the mid-1980’s to “improve the health and well-being of working Americans throughout the United States” (www.welcoa.org/presskit/index.php). The following seven key benchmarks of success have been identified by the Wellness Council of America:

1. Capturing CEO support
2. Creating Cohesive Wellness Teams
3. Collecting Data to Drive Health Efforts
4. Carefully Crafting An Operating Plan
5. Choosing Appropriate Interventions
6. Creating a Supportive Environment
7. Carefully Evaluating Outcomes

WELCOA believes that each of the above steps is essential in building a sustainable, results-oriented worksite wellness program

(<http://www.welcoa.org/wellworkplace/index.php?category=1>).

Purpose Statement

The purpose of this study was to evaluate the wellness culture of a mid-western university and to identify the health needs and interests of the faculty and staff employed along with current awareness and use of wellness benefits provided to them.

This study focused on the collection of data to demonstrate a need for a worksite wellness program at a mid-western university. The decision to adopt a health promotion program often relies on the support of just a few individuals in senior management. According to Weiner, Lewis and Linnan (2009) “the implementation of worksite health promotion programs should be regarded as an organizational act and the successful implementation of such programs viewed as an organizational issue” (p. 294). The data collected and analyzed through this study will be utilized to capture the support of upper management on this mid-western university campus and to gain the permissions required to continue on with the remaining six benchmarks as recommended by WELCOA.

The following objectives are to be met by the study:

1. Determine the employees’ awareness of the wellness benefits available to them.
2. Determine the employees’ participation and utilization of the benefits available to them.
3. Determine employee interest in the development of a worksite wellness program at their university.
4. Determine the employee perception of wellness support in culture and leadership on their campus.
5. Use the data collected through the study to provide support and recommendations to the university.

Limitations

The limitations of this study included (a) the data collected were self-reported, (b) the reliability and validity of the assessment instrument was not tested, and (c) the clarity of the question sets. Participants may have been hesitant to answer questions on job stress and management support truthfully. Participants may have also hesitated to answer the demographical questions for fear that they could potentially be identified. The survey did not clarify for the participants whether or not they would be expected to pay for the programs listed or if the university would be covering the cost. The participant's answers may have been based on their assumptions of who was covering the cost.

The immunization programs section of the needs and interests survey asked participants how likely they would be to be interested in a Lyme Disease Vaccine. According to the Centers for Disease Control and Prevention, a vaccine for Lyme disease is not currently available. Citing low demand, the manufacturer discontinued the previously available Lyme disease vaccine in 2002 (<http://www.cdc.gov/vaccines/vpd-vac/lyme/default.htm>). Whether or not participants were aware of this information could have affected their response to the question. A lack of education and understanding of the terminology used and the familiarity, or lack thereof, of procedures used in both the immunization and screening programs sections of the needs and interests survey could have affected the way participants answered the questions in those sections. Lastly, it is important to note that it is possible that some of the participants may have mistakenly flipped the Likert scores in their heads while answering the questions (1=Unlikely vs. 1=extremely).

Definition of Terms

Wellness: The condition of good physical, mental and emotional health, especially when maintained by an appropriate diet, exercise, and other lifestyle modifications.

(<http://medical-dictionary.thefreedictionary.com/wellness>).

Health: condition of physical, mental, and social well-being and the absence of disease or other abnormal condition. It is not a static condition. Constant change and

adaptation to stress result in homeostasis. (<http://medical-dictionary.thefreedictionary.com/health>).

Health Promotion: Any activity that seeks to improve a person's or population's health by providing information about and awareness of 'at risk' behaviors associated with

various conditions, and those behaviors. (<http://medical-dictionary.thefreedictionary.com/Health+Promotion>).

Health Risk: a disease precursor associated with a higher than average morbidity or mortality rate. Disease precursors include demographic variables, certain individual behaviors, familial and individual histories, and certain physiologic changes.

(<http://medical-dictionary.thefreedictionary.com/health+risk>).

Health Risk Appraisal: a process of gathering, analyzing, and comparing an individual's characteristics prognostic of health with those of a standard age group, thereby predicting the likelihood that a person may prematurely experience a health problem associated with higher than average morbidity and mortality rates.

(<http://medical-dictionary.thefreedictionary.com/health+risk+appraisal>).

CHAPTER II. LITERATURE REVIEW

Purpose Statement

The purpose of this study was to evaluate the wellness culture of a mid-western university and to identify the health needs and interests of the faculty and staff employed along with current awareness and use of wellness benefits provided to them.

Making the Case

“Worksites are important public health settings because the majority of US adults spend considerable amounts of time at work, and the work environment exerts an independent influence on employee health” (Linnan et al., 2008, p. 1503). The importance of addressing both the work environment and individual health behavior, as well as how essential it is to track employer efforts in health promotion is the basis for the development of any health promotion program. As indicated in *Healthy People 2010*, one of the major objectives was to increase the number of employers that offer health promotion programs for employees. This objective was again included in *Healthy People 2020* (<http://www.healthypeople.gov/2020/topicsobjectives2020/default.aspx>). The goal of the survey completed by Linnan and colleagues was to monitor this achievement by examining worksite health promotion programs, policies, and services.

Linnan et al. (2008) conducted a nationally representative, cross-sectional telephone survey of worksites drawn from the Dunn and Bradstreet database of all private and public employers in the continental United States. Companies in this survey were required to meet five key elements to be considered to have “comprehensive” health promotion programs. As outlined in *Healthy People 2010*, the five key elements of a worksite wellness program include health education, supportive social and physical work

environment, integration into the organization's structure, linkage to related programs such as employee assistance programs, and worksite health screenings and education. The program components measured in the survey included worksite size, industry type, number of years the health promotion program had been offered, and barriers to offering a worksite wellness program (Linnan et al., 2008).

In all, Linnan et al. (2008) conducted 1553 interviews with worksites of varying size and industry status. It was noted that the majority of companies employed at least one full-time staff directly responsible for health promotion and worksite wellness. Only 30.5% of companies reported having established programs for ten or more years, while over half of the companies included in the survey only reported having established programs for five years or less. Approximately 44.1% of companies surveyed expected a return on investment determined by employee feedback, workman compensation costs, health care claims costs, time lost and absenteeism, as well as employee participation. Participation incentives were utilized by 26% of companies (Linnan et al., 2008).

Only 49.5% of companies utilized collected data to guide their programs with only a small 19.4% conducting Health Risk Appraisals. Even more surprising, only 30.2% of companies surveyed reported having a 3-5 year strategic plan for health promotion and worksite wellness. However, 70% indicated health promotion programming was supported by their organization's business strategy and 67.5% of companies believed that they had integrated health promotion programming into the company's overall health care strategy (Linnan et al., 2008). According to Linnan et al. (2008), the most common health promotion and worksite wellness programs included employee assistance programs, back injury prevention, stress management, nutrition education, weight management, education,

and health care consumerism training. Sites with over 750 employees were most likely to add programs for disease management such as cardiovascular disease and diabetes. The most common barriers to offering health promotion and worksite wellness programs listed were a lack of employee interest, a lack of support by management, a lack of resources and funding, as well as a lack of participation by high risk employees (Linnan et al., 2008).

The survey results determined that only 6.9% of companies that responded to the survey met the criteria for a “comprehensive” health promotion program as set forth by *Healthy People 2010*. This is a far cry from the 75% objective. Linnan et al. (2008) indicated that a disturbingly low amount of health promotion programs are available to employees during a time where both health care costs and work demands are rising. The hope was that the results of this survey would motivate collaborative relationships between employers, employees, health plans, policy makers, and organizations with the common goal of improving the health of our public through the workplace. Linnan and colleagues (2008) concluded that additional research is essential in the development of sustainable, results-oriented worksite-based interventions. This may be especially true for smaller companies.

The increase in disease and illness along with the increase in medical costs is placing businesses in quite the predicament when it comes to providing health care to their employees. With this in mind, Reardon (1998) indicated that the responsibility for health care is shifting from the health care industry to its consumers, as well as shifting from the government to the employer.

Pencak (1991) developed three levels of worksite wellness:

- Level one – Awareness – involves providing information through classes, posters, and health fairs without including follow-ups.
- Level two – Lifestyle Change – involves behavior change programs lasting up to 12 weeks.
- Level three – Environmental Change – involves the existence of indefinite behavior change.

According to Reardon (1994), the National Survey of Worksite Health Promotion Activities found that 80% of businesses offered level one education, but that the findings concerning levels two and three offerings were not as promising.

Reardon (1994) determined that workplace health promotion and wellness programs are “progressive, responsible, and supportive of individual consumers and communities” (p. 118). The best of these programs addresses wellness as a whole along with prevention and offers a variety of interventions built around the “unique nature of the individuals” (p. 120). Reardon declared that worksite wellness “directly generates cost savings as often as it generates employee satisfaction”, and “capturing employee happiness is vital to recruitment and retention efforts” (p. 120). A national survey conducted by RAND (contraction of the term research and development) employers with at least 50 employees in both public and private sectors, determined that “approximately half of United States employers offer wellness program initiatives, and larger employers are more likely to have more complex wellness programs” (p. 14) (http://www.rand.org/pubs/research_reports/RR254.html).

Two other mid-western state universities with similar demographics who had initiated faculty and staff wellness programs shared summaries of their wellness journeys. The first presented a proposal to leadership on campus and was denied funding. They were eventually able to secure a grant that allowed them to move forward with a faculty and staff wellness program that was sustainable for a few years. Their program included surveys, wellness coaching, assessments, and an annual 5k run/walk. The program, as it was, came to an end due to further budget and staffing cuts. They were able to maintain a wellness committee that manages a website to post all wellness events relative to faculty and staff and were able to continue with a noon speaker series and to offer free fitness classes lead by interns. They are now presenting a new proposal; which they have named “Flourishing Campus 2020”, to the provost which that embodies a campus-wide approach to wellness for faculty, staff and students (C. Haukos, personal communication, March 2014).

The second peer university shared a very different experience. In 2000, the university’s president launched a Healthy University Coalition. Two years later, the president funded a worksite wellness needs assessment on their campus. In 2005, wellness programming began for faculty and staff after the president appointed a task force and funded a graduate student. One year after that, an advisory board for worksite wellness was formed. In 2007, the worksite wellness program for faculty and staff at their university was funded at \$100,000 by the president, branded and launched. The program continued to grow over the next few years and began to receive multiple awards, such as the American Heart Association Fit-Friendly company Award and the CEO Cancer Gold Standard Company, which they have continued to earn year after year. A full-time coordinator position and one part-time student were funded to run the program beginning in 2009.

This university utilizes WELCOA's benchmarks to maintain a sustainable faculty and staff wellness program. The program has shifted from a base health and fitness model to a wellness management model. Their goal is to move toward a health productivity management model (K. Ruliffson, personal communication, March 2014).

Rate of Return - Does Worksite Wellness Work?

Worksite wellness is continuing to grow and develop, rooted by financial incentives. Reardon (1998) maintained that, although conflicted and limited, research data supporting worksite wellness is promising. According to Reardon's article, the cost benefit of having an established prevention program far exceeds the financial loss associated with "unmonitored" disease risk, and that "the numbers alone offer rationale for the presence of a worksite wellness program" (p. 2).

The Washoe County School District wanted to assess the impact their wellness program was having on healthcare costs and rates of absenteeism. From 1997-2002, Aldana and colleagues (2004) evaluated 6246 Washoe County School employees. Data collected included age, gender, job classification, years worked at the school district; baseline health claims costs, and absenteeism. Employees who participated in the wellness program for one to two years were included in the study. Programs on dental health, weight management, physical activity, nutrition and hydration, sleep, mental health, and seatbelt safety were offered during the time of the study (Aldana et al, 2004).

The resulting data did not show a significant difference in healthcare costs between employees who participated in the wellness program and employees who did not. However, Aldana and colleagues (2004) noted that decreases in healthcare costs may start to show up after three years of program participation. It was concluded that, "that

improvement of health risks through worksite health promotion program participation may have a limited effect on short-term healthcare costs, but they may be more financially beneficial with the passage of time as more costly chronic diseases are prevented” (p. 135).

On a more positive note, a significant negative relationship was documented between program participation and absenteeism. The employees who chose not to participate in the wellness program missed three more work days on average. Accordingly, program participants saved the school district \$15.60 for every dollar spent on the program (Aldana et al., 2004).

Statistical analyses completed by RAND (2013) suggested that “participation in a wellness program over 5 years is associated with a trend toward lower health care costs and decreasing health care use” and employers who participated in the RAND Employer Survey “overwhelmingly expressed confidence that worksite wellness programs reduce medical cost, absenteeism and health-related productivity losses” (p. 19).

Parks and Steelman (2008) suggested looking beyond health care costs as a measure for return on investment. Employees are more loyal toward the company, and in turn, more productive when the company signifies care and support for their employees’ well-being through a wellness program. Even though many employers are making the move to offer health promotion programs, most of them are small in size and impact (Sherman, 2002). Sherman stressed that due to compelling research results, employers need to recognize the positive impact an investment in worksite health promotion could have in improving business productivity. Sherman listed reduced healthcare costs, reduced absenteeism, improved employee performance, improved productivity, enhanced employee morale, enhanced employee recruitment and retention, and community goodwill as potential

benefits to employers. Similarly, improved health, improved quality of life, less time being ill or with disability, and reduced healthcare costs were noted as potential benefits to the employee (Sherman, 2002).

Sherman (2002) also discussed the importance of implementing these programs in an intentional, systematic manner. The key components of this approach include compiling supportive materials, educating senior management, developing a budget, selecting a program, identifying program effectiveness measures, identifying communication and advertising methods, creating employee participation strategies, collecting data and reporting results, evaluating program effectiveness, and creating a performance improvement plan (Sherman, 2002). Sherman's key components are comparable to WELCOA's 7 benchmarks.

Chapman (2005) stated that "the research and evaluation literature on health promotion and wellness programs in workplace settings is both complex and voluminous" (p. 1). Chapman's meta-evaluation of worksite health promotion economic return studies reviewed fifty-six studies meeting the following criteria: multi-component programming, workplace setting only, reasonably rigorous study design, original research, examination of economic variable, publication in a peer-reviewed journal, the use of statistical analysis, sufficient sample size, replicable interventions, and minimum length of intervention period (Chapman, 2005).

A grand total of 483,232 diverse subjects were included in the fifty-six studies reviewed by Chapman (2005). The review results demonstrated that sick leave absenteeism was reduced on average by 26.8%, health costs were reduced by an average of 26.1%, and workers' compensation costs and disability management claims costs were

reduced by an average of 32%. The overall average cost/benefit ratio was \$5.81 for every dollar invested in a wellness program, meaning that for every \$1 put into these programs, \$5.81 was saved on healthcare costs (Chapman, 2005).

Chapman did an update to the meta-evaluation in 2012. Four of the studies used in Chapman's 2005 meta-evaluation were classified as weaker and were dropped from this update and ten new studies were added, resulting in 62 studies in total. The 2012 meta-evaluation update again provided strong evidence with "average reduction in sick leave, health plan costs, and workers' compensation and disability insurance costs of around 25%" (p. 9).

Berry, Mirabito and Baun (2010) studied ten organizations, across a variety of industries, whose wellness programs have systematically achieved measurable results. They tangentially examined existing research in the hope of better understanding the business case for investing in employee health. They found multiple cases in favor of a positive return from wellness. Here a few examples:

- Johnson and Johnson leaders estimated a return of \$2.71 for every dollar spent on wellness programs from 2002-2008 resulting in \$250 million saved on health care costs for the company (p. 2).
- The MD Anderson Cancer Center was able to decrease lost work days by 80%, modified-duty days by 64%, and workers' comp insurance premiums by 50% within a 6-year time frame by creating a workers' compensation and injury care unit within its employee health and well-being department, staffed by a physician and nurse case manager (p. 2)

- Biltmore (tourism) was able to decrease voluntary turnover from 19% down to 9% over a 4-year time period. Biltmore's Director of Benefits and Compensation credited their improved retention rates to their employee wellness program (p. 3)
- During exit interviews, most employees leaving Nelnet (education finance firm) state that the thing they will miss the most about working for Nelnet is the employee wellness program (p. 3).
- Health care claims are about \$1,500 higher among nonparticipants at H-E-B (grocery retail) than that of wellness program participants with a high-risk health status (p. 8).
- In 2009, SAS Institute (software) saw a return of \$1.41 to every \$1 they spent to operate their onsite health care center for a total savings of \$6.6 million that year alone (p. 8).

The findings of Reardon (1998), Sherman (2002), Aldana and colleagues (2004), Chapman (2005), Parks and Steelman (2008), Berry and Colleagues (2010) and RAND (2013) have made a clear case for worksite wellness programs for 15 years.

Leadership Support

The Wellness Council of America (WELCOA) lists "Capturing CEO Support" as their number one benchmark for successful worksite wellness programs (<http://www.welcoa.org/wellworkplace/index.php?category=16>). WELCOA's President, David Hunnicutt (2007), believes that capturing CEO support is critical and that the process of building a wellness program that is results-oriented revolves around that level of leadership.

Hunnicutt (2007) also believes that there are six tests a leader must pass that set the Gold Standard in leading a healthy company:

1. Feeling the Burden,
2. Developing the Vision,
3. Allocating the Resources,
4. Communicating the Importance,
5. Setting the Example and
6. Distributing the responsibility.

Hunnicutt (2007) stated that, “if the CEO doesn’t feel the burden of responsibility for making sure that they are addressing the health and wellness needs of their workforce, the worksite wellness initiative usually rings hollow” (p. 9). Employees struggle, and cannot improve when they cannot see the future. It is the job of the CEO to clearly define the company’s health future. The CEO is also responsible for properly allocating resources to wellness. Appropriate staffing, a budget, physical space, and employee time allowed for participation in wellness programs must all be considered or program failure is inevitable (Hunnicutt, 2007).

According to Allen (2007), most managers are supportive of worksite wellness programs and can see the value in them. They just need assistance to “imagine the possibilities, to comprehend the value, to understand the research, and most of all, to develop their roles as wellness leaders” (p. 15). Allen says that wellness leaders fall into one of five categories:

1. Active Opposition,
2. Quiet Opposition,

3. Neutral,
4. Quiet Supporters and
5. Wellness Champions.

Allen further clarifies that it is the responsibility of the wellness leaders to understand how to communicate to managers at each stage and to then assist them in advancing through the stages to a more supportive position (Allen, 2007).

Summary

This review of literature provided background information on worksite wellness as well as the components and best practices of a worksite wellness program. Chapman's (2005) meta-evaluation of worksite health promotion economic return studies makes the case for a clear return on investment in worksite wellness programs. Hunnicutt (2007) declared the importance of obtaining leadership support as a critical component of a successful worksite wellness program. Allen (2007) stated that it is the responsibility of the wellness leaders to assist managers in understanding the importance of worksite wellness and to obtain their support.

A clear understanding of the benefits of a worksite wellness program, data collected on needs, interests, and the current wellness culture on the mid-western university campus in question is necessary to make a solid case in favor of establishing a worksite wellness program on their campus and in obtaining leadership support to move forward.

CHAPTER III. METHODS

Purpose Statement

The purpose of this study was to evaluate the wellness culture of a mid-western university and to identify the health needs and interests of the faculty and staff employed along with current awareness and use of wellness benefits provided to them.

Subjects

Electronic surveys were made available to all of the benefitted faculty and staff at a public mid-western university, 2600 employees on average according to the human resources office (average 49.8% male and 50.2% female). The Survey System Sample Size Calculator was used to determine our goal sample size (<http://www.surveysystem.com/sscalc.htm>). A confidence level of 95%, a confidence interval of 5 and the average population of 2600 were entered into the calculator. The goal sample size needed was determined to be 335 survey respondents. A total of 433 university employees participated in the survey (16.7% of average faculty and staff population).

Procedures

This study was approved by the university's Institutional Review Board prior to implementation. All participating faculty and staff were asked to complete an electronic, questionnaire (Appendix A) including questions on the following:

- Program interests,
- Awareness of the wellness benefits,
- Participation in and utilization of the wellness benefits,
- Perceived support from management and

- The current wellness culture on the mid-western State University campus.

Participating faculty and staff received the survey electronically through a faculty and staff list-serve once per week for the duration of four weeks. The invitation to participate and confidentiality statements were included in the body of the email (Appendix C). The surveys were sent out on Monday, November 11, 2013, Monday, November 18, 2013, Tuesday, November 26, 2013 and Monday, December 2, 2013.

Instrumentation

The data collection instrumentation consisted of the following components within the electronic questionnaire: (a) an original set of demographic questions specific to this university and (b) wellness program needs and interests, health culture, and management support questions provided through the Wellness Council of America (www.welcoa.org) (See Appendix A). The participants indicated how likely they would be to participate on a 4-point Likert scale (1-Extremely to 4-Unlikely) in the programs listed in the needs and interests portion of the survey. Participants answered ‘agree’ or ‘disagree’ to the statements listed in the culture and leadership portion of the survey. Permissions to utilize the questions were received electronically from a WELCOA representative (Appendix B).

Data Analysis

The results of the electronic questionnaire were calculated utilizing Survey Monkey; an innovative online survey software that combines elements of data collection, clear reporting, and integration (<https://www.surveymonkey.com/mp/aboutus/>) and Microsoft Office Excel.

The intent of this study was to be informative in nature and the data generated were subjected to univariate analyses. Each response to the needs and interests survey was analyzed for the mean to determine interest in each program listed. The average mean was analyzed for each program focus area:

- Educational Programs,
- Employee Assistance Programs,
- Fitness Programs,
- Immunization Programs,
- Nutrition Education Programs,
- Screening Programs and
- Visiting Onsite Health Nurse.

Finally, the average mean for the entire needs and interests portion of the survey was analyzed to determine overall interest in an employee wellness program.

**CHAPTER IV. WORKSITE WELLNESS CULTURE: AN ASSESSMENT OF THE
NEEDS AND INTERESTS OF THE FACULTY AND STAFF OF A MIDWESTERN
STATE UNIVERSITY**

Abstract

Employers have access to their employees for the majority of their day, and therefore, have the perfect opportunity to provide education and influence on healthy decision making skills. Literature in this area provides significant medical and economical data in support of worksite wellness programs.

Purpose: To evaluate the wellness culture of a mid-western university and to identify the health needs and interests of the faculty and staff employed along with current awareness and use of wellness benefits provided to them.

Methods: An electronic questionnaire addressing awareness of wellness benefits, participation in and utilization of the wellness benefits, wellness program interests, perceived support from leadership and the current wellness culture on campus was sent to faculty and staff over a 4-week period. A total of 433 faculty and staff responded to the questionnaire (16.7% of average faculty and staff population).

Results: Knowledge of their eligibility for the current wellness programs offered was fair but utilization of the programs was low for those respondents who reported that they were aware of their existence. On average, the respondents reported that they are likely to be interested in wellness programs. Both leadership support in wellness and a culture conducive to wellness were reported to be lacking on campus.

Conclusion: The data collected provide support for further research and a proposal to leadership at the university to invest resources into an employee wellness program.

Introduction

In 2009, the North Dakota Department of Health, Blue Cross Blue Shield of North Dakota, and the Dakota Medical Foundation partnered to form the North Dakota Worksite Wellness initiative. Their charge was to increase the number of worksite wellness programs provided by North Dakota businesses and organizations.

(<http://www.ndworksitewellness.org/about>). The following statistics have been revealed within research conducted through the initiative:

- The Milken foundation estimates a \$2.1 billion loss annually in North Dakota due to lost workdays and decreased productivity.
- Modifiable lifestyle choices cost North Dakota more than \$550 million annually in medical expenditures.
- More than 67% of our residents are overweight or obese.
- Physically active people in North Dakota can save up to \$500 per year in medical costs.
- Nearly 75% do not get regular daily exercise.
- According to an Easy Carolina University health calculation tool, physical inactivity is costing North Dakota \$990,448,191. This is made up of \$136,902,191 in medical care costs, \$2,128,435 in Workers' comp costs, and a staggering \$841,418,191 in lost productivity.

An estimated \$49,022,411 could be saved if even 5% of North Dakotans became more physically active (<http://www.ndworksitewellness.org/whyworksite/facts.htm>).

“Worksites are important public health settings because the majority of US adults spend considerable amounts of time at work, and the work environment exerts an independent influence on employee health” (Linnan et al., 2008, p. 1503). The importance of addressing both the work environment and individual health behavior, as well as how essential it is to track employer efforts in health promotion is the basis for the development of any health promotion program. As indicated in *Healthy People 2010*, one of the major objectives was to increase the number of employers that offer health promotion programs for employees. This objective was again included in *Healthy People 2020* (<http://www.healthypeople.gov/2020/topicsobjectives2020/default.aspx>).

Worksite wellness is continuing to grow and develop, rooted by financial incentives. According to Reardon(1998), the cost benefit of having an established prevention program far exceeds the financial loss associated with “unmonitored” disease risk, and that “the numbers alone offer rationale for the presence of a worksite wellness program” (p. 2). Recent literature further supports this rationale. Statistical analyses completed by RAND (2013) suggested that “participation in a wellness program over 5 years is associated with a trend toward lower health care costs and decreasing health care use” and employers who participated in the RAND Employer Survey “overwhelmingly expressed confidence that worksite wellness programs reduce medical cost, absenteeism and health-related productivity losses” (p. 19).

Chapman (2005) stated that “the research and evaluation literature on health promotion and wellness programs in workplace settings is both complex and voluminous” (p. 1). Chapman’s meta-evaluation of worksite health promotion economic return studies reviewed fifty-six studies meeting the following criteria: multi-component programming,

workplace setting only, reasonably rigorous study design, original research, examination of economic variable, publication in a peer-reviewed journal, the use of statistical analysis, sufficient sample size, replicable interventions, and minimum length of intervention period (Chapman, 2005).

A grand total of 483,232 diverse subjects were included in the fifty-six studies reviewed by Chapman (2005). The review results demonstrated that sick leave absenteeism was reduced on average by 26.8%, health costs were reduced by an average of 26.1%, and workers' compensation costs and disability management claims costs were reduced by an average of 32%. The overall average cost/benefit ratio was \$5.81 for every dollar invested in a wellness program, meaning that for every \$1 put into these programs, \$5.81 was saved on healthcare costs (Chapman, 2005). Chapman did an update to the meta-evaluation in 2012. Four of the studies used in Chapman's 2005 meta-evaluation were classified as weaker and were dropped from this update and ten new studies were added, resulting in 62 studies in total. The 2012 meta-evaluation update again provided strong evidence with "average reduction in sick leave, health plan costs, and workers' compensation and disability insurance costs of around 25%" (p. 9).

Berry, Mirabito and Baun (2010) studied organizations such as Johnson and Johnson, MD Anderson Cancer Center, Biltmore (tourism), Nelnet, HE-G and SAS Institute and found wellness programs to achieve measurable results across a variety of industries. For example, Johnson and Johnson estimated a \$250 million savings on health care costs for the company over a six year time period (p. 2). Likewise, SAS Institute reported a total savings of \$6.6 million in one year alone thanks to their onsite health care center. Biltmore was able to decrease voluntary turnover from 19% to 9% over a 4-year

period. Multiple other cases were found in favor of a positive return from wellness (Berry, et al., 2010).

Parks and Steelman (2008) suggested looking beyond health care costs as a measure for return on investment. Employees are more loyal toward the company, and in turn, more productive when the company signifies care and support for their employees' well-being through a wellness program. Even though many employers are making the move to offer health promotion programs, most of them are small in size and impact (Sherman, 2002). Sherman stressed that due to compelling research results, employers need to recognize the positive impact an investment in worksite health promotion could have in improving business productivity. Sherman listed reduced healthcare costs, reduced absenteeism, improved employee performance, improved productivity, enhanced employee morale, enhanced employee recruitment and retention, and community goodwill as potential benefits to employers. Similarly, improved health, improved quality of life, less time being ill or with disability, and reduced healthcare costs were noted as potential benefits to the employee (Sherman, 2002).

The Wellness Council of America (WELCOA) lists "Capturing CEO Support" as their number one benchmark for successful worksite wellness programs (<http://www.welcoa.org/wellworkplace/index.php?category=16>). WELCOA's President, David Hunnicutt (2007), believes that capturing CEO support is critical and that the process of building a wellness program that is results-oriented revolves around that level of leadership.

According to Allen (2007), most managers are supportive of worksite wellness programs and can see the value in them. They just need assistance to “imagine the possibilities, to comprehend the value, to understand the research, and most of all, to develop their roles as wellness leaders” (p. 15).

This study focused on the collection of data to demonstrate a need for a worksite wellness program at a mid-western university. The decision to adopt a health promotion program often relies on the support of just a few individuals in senior management. According to Weiner, Lewis and Linnan (2009) “the implementation of worksite health promotion programs should be regarded as an organizational act and the successful implementation of such programs viewed as an organizational issue” (p. 294). The data that was collected and analyzed through this study will be utilized to capture the support of upper management on this mid-western university campus and to gain the permissions required to continue on with the remaining six benchmarks as recommended by WELCOA. The following objectives were addressed by the study:

1. Determine the employees’ awareness of the wellness benefits available to them.
2. Determine the employees’ participation and utilization of the benefits available to them.
3. Determine employee interest in the development of a worksite wellness program at their university.
4. Determine the employee perception of wellness support in culture and leadership on their campus.
5. Use the data collected through the study to provide support and recommendations to the university.

Methods

According to the human resources office, the university has on average, 2600 benefitted faculty & staff (average 49.8% male and 50.2% female). The Survey System Sample Size Calculator was used to determine our goal sample size (<http://www.surveysystem.com/sscalc.htm>). A confidence level of 95%, a confidence interval of 5 and the average population of 2600 were entered into the calculator. The goal sample size needed was determined to be 335 survey respondents. Electronic surveys were sent to all benefitted staff, once per week for four weeks through faculty and staff listservs. The surveys were sent out on Monday, November 11, 2013, Monday, November 18, 2013, Tuesday, November 26, 2013 and Monday, December 2, 2013. A total of 433 faculty and staff elected to participate by completing the survey (16.7% of average faculty and staff population).

The electronic survey consisted of the following components: (a) an original set of demographic questions specific to this university and (b) wellness program needs and interests, health culture, and management support questions provided through the Wellness Council of America (www.welcoa.org) (See Appendix A). The participants indicated how likely they would be to participate on a 4-point Likert scale (1-Extremely to 4-Unlikely) in the programs listed in the needs and interests portion of the survey. Participants answered 'agree' or 'disagree' to the statements listed in the culture and leadership portion of the survey.

The electronic questionnaire and link were generated utilizing Survey Monkey; an innovative online survey software that combines elements of data collection, clear reporting, and integration (<https://www.surveymonkey.com/mp/aboutus/>). Survey Monkey

was also utilized to calculate the demographic characteristics of the respondents. The descriptive statistics were calculated utilizing Microsoft Office Excel.

The intent of this study was to be informative in nature and the data generated were subjected to univariate analyses. Each response to the needs and interests survey was analyzed for the mean to determine interest in each program listed. The average mean was analyzed for each program focus area:

- Educational Programs,
- Employee Assistance Programs,
- Fitness Programs,
- Immunization Programs,
- Nutrition Education Programs,
- Screening Programs and
- Visiting Onsite Health Nurse.

Finally, the average mean for the entire needs and interest portion of the survey was analyzed to determine overall interest in an employee wellness program.

Results

A total of 433 faculty and staff participated in the survey (16.7% of average faculty and staff population). Participants did not answer every question in the survey; however, the number of respondents to every question outside of demographics never fell below the goal of 335. The respondent characteristics can be found in Table 1 (gender, age and years employed).

As can be seen in Table 1, not all respondents reported their gender and age. Of those who did, 64.4% were female as compared to 35.6% male. The actual average for the

faculty and staff population as reported by the human resources department is 49.8% male and 50.2%. The age demographic was fairly evenly spread between the ages of 22-64. The spread of years working for the university was also pretty even across the board.

Table 1
Characteristics of Respondents

Characteristic	Frequency (%)
Gender (n=225)	
Male (n=80)	35.60%
Female (n=145)	64.40%
Age Range (n=225)	
21 and under (0)	0.00%
22-34 (n=36)	16.00%
35-44 (n=62)	27.60%
45-54 (n=59)	26.20%
55-64 (n=57)	25.30%
65 and over (n=11)	4.90%
Years working at the University (n=433)	
1 year or less (n=45)	10.40%
2-5 years (n=108)	24.90%
6-10 years (n=105)	24.20%
11-20 years (n=103)	23.80%
21 or more years (n=72)	16.60%

The remaining results will be presented by first providing general descriptive statistics from the responses provided by the participants and then providing information specific to addressing the study objectives:

1. Determine the employees' awareness of the wellness benefits available to them.
2. Determine the employees' participation and utilization of the benefits available to them.

3. Determine employee interest in the development of a worksite wellness program at their university.
4. Determine the employee perception of wellness support in culture and leadership on their campus.
5. Use the data collected through the study to provide support and recommendations to the university.

Descriptive Statistics

Table 2 demonstrates the frequencies of responses provided by the participants related to their perceived needs and interests in wellness programs. Responses ranged from Extremely Likely (1) to Unlikely (4). Total number of respondents and mean are provided for each line item. The average mean was analyzed for each program focus area:

- Educational Programs,
- Employee Assistance Programs,
- Fitness Programs,
- Immunization Programs,
- Nutrition Education Programs,
- Screening Programs and
- Visiting Onsite Health Nurse.

Participants were also asked how likely they would be to participate in programs offered at the following times: before work, during lunch at work and after work.

Table 2 provides the frequencies and averages for responses to the employee needs and interests portion of the survey. Out of all of the programs listed, respondents were most interested in receiving flu shots (mean=2.26), corporate fitness membership rates

(mean=2.27) and onsite, low-impact exercise equipment (mean=2.31). Respondents were least interested in substance abuse education (mean=3.56, assistance with parenting difficulties (mean=3.32) and prostate checks (PSA) (mean=3.31).

Table 2
Employee Needs and Interests

1-Extremely, 2-Likely, 3-Somewhat, 4-Unlikely

Educational Programs	1	2	3	4	n	Mean
Body Fat Testing	83	105	39	121	348	2.57
Back Safety	41	84	114	164	403	3.00
Cancer Prevention	46	122	121	113	402	2.75
Heart Disease Prevention	56	110	116	119	401	2.76
Stroke Prevention	55	107	108	131	401	2.79
Cholesterol Reduction	54	105	114	129	402	2.79
Home Safety	33	62	127	178	400	3.13
Substance Abuse	19	24	71	284	398	3.56
Headache Prevention & Treatment	41	88	95	176	400	3.01
Cold/Flu Prevention & Treatment	44	79	121	154	398	2.97
Self-Help/Self-Care	45	100	114	138	397	2.87
Stress Reduction	44	102	125	129	400	2.85
Time Management	42	93	122	142	399	2.91
Educational Program Average Mean						2.92
Employee Assistance Programs (EAP)	1	2	3	4	n	Mean
Depression Treatment	34	62	83	222	401	3.23
Financial Management	49	100	96	152	397	2.88
Job Stress	44	110	111	137	402	2.85
Accepting Change	27	79	113	182	401	3.12
Parenting Difficulties	31	50	79	238	398	3.32
Managing Chronic Health Conditions (diabetes, hypertension...)	30	58	93	219	400	3.25
Managing Chronic Pain (neck, shoulder, back, etc.)	39	68	107	185	399	3.10
Controlling Anger/Emotions	24	57	94	225	400	3.30
EAP Average Mean						3.13
Fitness Programs	1	2	3	4	n	Mean
Corporate Fitness Membership Rates	128	112	77	79	396	2.27
Exercise Tolerance (STRESS) Testing	93	127	88	91	399	2.44
On-site, Low-impact Exercise Equipment	108	135	78	77	398	2.31

(continues)

Table 2. *Employee Needs and Interests (continued)*

1-Extremely, 2-Likely, 3-Somewhat, 4-Unlikely

Fitness Programs (continued)	1	2	3	4	n	Mean
Prescribed Exercise Programs	81	132	91	93	397	2.49
Stretching Programs	94	139	91	74	398	2.36
Walk-fit Programs	90	133	96	78	397	2.41
Fitness Programs Average Mean						2.38
Immunization Programs	1	2	3	4	n	Mean
Flu Shots	159	84	56	103	402	2.26
Tetanus Shots	106	85	92	116	399	2.55
Lyme Disease Vaccine	73	77	99	150	399	2.82
Hepatitis 'B' Vaccine	75	62	102	161	400	2.87
Immunization Programs Average Mean						2.63
Nutrition Education Programs	1	2	3	4	n	Mean
Healthy Cooking (meals/snacks)	101	116	94	91	402	2.44
Healthy Eating (Do's/Don'ts)	96	116	86	104	402	2.49
Weight Management Programs (diet & exercise)	102	124	80	95	401	2.42
Onsite Vending Machines with Healthy Choices	117	103	84	97	401	2.33
Nutrition Education Average Mean						2.42
<i>Other programs noted: weight loss support group</i>						
Screening Programs	1	2	3	4	n	Mean
Blood Pressure Checks	120	117	78	87	402	2.33
Blood Sugar (Diabetes)	106	96	86	111	399	2.51
Cholesterol Levels	123	107	84	88	402	2.34
Multiphasic Blood Screening	93	90	87	130	400	2.64
Cardiovascular (EKG's)	88	87	90	136	401	2.68
Colon/Rectal (cancer)	65	72	96	166	399	2.91
Prostate Checks (PSA)	47	35	63	252	397	3.31
Stool Checks (bowels)	55	49	90	203	397	3.11
Mammograms	84	67	59	181	391	2.86
Vision	121	108	66	103	398	2.38
Screening Programs Average Mean						2.71
<i>Other tests noted: hearing, gluten allergy, bone density</i>						
<i>Comments: Only if pd by insurance or free (1)</i>						
Visiting Onsite Healthcare Nurse	1	2	3	4	n	Mean
	51	92	101	157	401	2.90
Onsite Health Nurse Average Mean						2.90

(continues)

Table 2. *Employee Needs and Interests (continued)*

1-Extremely, 2-Likely, 3-Somewhat, 4-Unlikely

Average overall interest in wellness programs						Mean
						2.73
How likely would you be to participate at the following times?						Mean
	1	2	3	4	n	
Before Work	53	74	70	165	362	2.96
During Lunch @ Work	115	128	86	58	387	2.22
After Work	74	108	87	107	376	2.60

The average mean was analyzed for each program focus area:

- Educational Programs (average mean=2.92),
- Employee Assistance Programs (average mean=3.13),
- Fitness Programs (average mean=2.38),
- Immunization Programs (average mean=2.63),
- Nutrition Education Programs (average mean=2.42),
- Screening Programs (average mean= 2.71) and
- Visiting Onsite Health Nurse (average mean=2.90).

Respondents showed the most interest in fitness programs (average mean 2.38) and nutrition education programs (average mean 2.42) overall. The two focus areas with the least interest were Employee Assistance Programs (EAP) (average mean 3.13) and educational programs (average mean 2.92). Participants also stated that they would be most likely to participate in wellness programs during lunch at work (mean=2.22) as compared to before work (mean=2.96) or after work (mean=2.60). According to research conducted by Linnan et al. (2008), the most common health promotion and worksite wellness programs include employee assistance programs, back injury prevention, stress

management, nutrition education, weight management, education, and health care consumerism training. Sites with over 750 employees are most likely to add programs for disease management such as cardiovascular disease and diabetes.

Table 3 addresses both of the first two study objectives. It is important to note that the survey could have been completed by faculty and staff who elected not to take the health plan and this could have impacted the responses to the awareness and utilization questions.

Table 3
Current Wellness Programs

Awareness of Current Wellness Programs					
	Yes	No	Total		% Yes
I am aware that I have access to HealthyBlue, an online wellness tool	298	132	430		69.30%
I am aware that I have access to the Health Club Credit Program	392	39	431		91.00%
Utilization of Current Wellness Programs					
	Yes	No	Total		% Yes
Are you utilizing the HealthyBlue online wellness tool?	102	329	431		23.70%
Are you participating in the Health Club Credit Program?	131	299	430		30.50%

Interestingly, 91% of respondents stated that they were aware that they were eligible for the Health Club Credit Program, but only 69.3% stated that they were aware that they had access to the HealthyBlue online wellness tool. Only 30.5% of respondents stated that they were utilizing the Health Club Credit Program and only 23.7% stated that they were utilizing the HealthyBlue online wellness tool.

Table 4 displays the responses to the leadership and culture support portion of the survey. Participants answered ‘agree’ or ‘disagree’ to the statements listed in these sections.

Table 4
Leadership and Cultural Support

Leadership Support Question Set	Agree	Disagree	Total	% agree
Being healthy is important to me	395	2	397	99%
My company cares about my health status	283	107	390	73%
In my company, I am encouraged to lead a healthier lifestyle	200	194	394	51%
In my company, leaders model good health practices	164	222	386	42%
In my company, people who lead healthy lifestyles are rewarded with incentives	113	271	384	29%
In my company, people who lead healthy lifestyles are publicly recognized	18	366	384	5%
Avg. % that believe they have leadership support				40%
Wellness Culture Question Set	Agree	Disagree	Total	% agree
In my company, a strong wellness program is in place for all employees	158	233	391	40%
In my company there is a team that oversees all company wellness activities	106	271	377	28%
In my company, people support others who are attempting to lead healthy lifestyles	211	173	384	55%
In my company, there are low-fat/healthy food options available	201	186	387	52%
In my company, a smoke free environment is promoted	385	10	395	97%
In my company, it is normal for people to exercise during the workday	136	243	379	36%
Avg. % that believe they have cultural support				51%

Ninety-nine percent of respondents stated that being healthy is important to them. Seventy-three percent of respondents agreed that the university cares about their health status, but only 51% agreed that they were encouraged to lead a healthier lifestyle. Less than half of respondents agreed that a strong wellness program is in place for all employees (40%) and that there is a team that oversees all company wellness activities (28%). A little over half of respondents agreed that people support others who are attempting to lead healthy lifestyles (55%) and that there are low-fat/healthy foods available on campus (52%). However, 97% of respondents agreed that a smoke free environment is promoted on campus.

Discussion

Research in this area provides significant medical and economical data in support of worksite wellness programs. “Literature has convincingly demonstrated that employee health risk behaviors are associated with increased healthcare costs, and that a reduction in these behaviors is associated with reduced healthcare costs and absenteeism” (Sherman, 2002, p. 102). Employers have access to their employees for the majority of their day, and therefore, have the perfect opportunity to provide education and influence on healthy decision making skills.

The purpose of this study was to evaluate the wellness culture of a mid-western university and to identify the health needs and interests of the faculty and staff employed along with current awareness and use of wellness benefits provided to them with the end goal of utilizing the data to provide support and recommendations to the university.

Interestingly, 91% of respondents stated that they were aware that they were eligible for the Health Club Credit Program, but only 69.3% stated that they were aware that they had access to the HealthyBlue online wellness tool. Only 30.5% of respondents stated that they were utilizing the Health Club Credit Program and only 23.7% stated that they were utilizing the HealthyBlue online wellness tool. It would be recommended to add a follow-up question on future surveys done with this population to attempt to determine why participants may not be utilizing the programs. Is it a lack of awareness or is it a lack of interest in the programs themselves and what they have to offer?

The responses to the needs and interests portion of the survey were utilized to determine employee interest in development of a worksite wellness program at their university. An average overall mean of 2.73 was calculated for the entire needs and interest portion of the survey. Therefore, on average, the respondents are likely to be interested in wellness programs. Only 40% of respondents stated agreed that there was a strong wellness program already in place for all employees, and on average, 51% of respondents agreed that there is a culture that supports wellness on campus. Although, on average, 73% agreed that the university cares about their health status, only 40% of respondents agreed that they have leadership support in wellness.

The results of the survey will be provided to the university's designated wellness coordinator as well as the wellness consultant assigned to the university by the health insurance provider. The recommendation will be to develop a focus group or wellness strategy committee with key individuals from the university who can assist in using the data to create a proposal for decision makers.

With only 40% of respondents agreeing that they have leadership support in wellness and only 30% or less of respondents utilizing current wellness programs offered to faculty and staff, the findings of this study are similar to those found by Linnan et al. (2008) during a nationally representative, cross-sectional telephone survey of worksites drawn from the Dunn and Bradstreet database of all private and public employers in the continental United States. They found that the most common barriers to offering health promotion and worksite wellness programs listed were a lack of employee interest a lack of support by management, a lack of resources and funding, as well as a lack of participation by high risk employees (Linnan et al., 2008). The decision to adopt a health promotion program often relies on the support of just a few individuals in senior management. According to Weiner, Lewis and Linnan (2009); “the implementation of worksite health promotion programs should be regarded as an organizational act and the successful implementation of such programs viewed as an organizational issue” (p. 294). It may be beneficial for the university to do a leadership support audit at all levels of leadership to determine if this perception of the respondents is accurate.

Reardon (1998) indicated that the responsibility for health care is shifting from the health care industry to its consumers, as well as shifting from the government to the employer. Pencak (1991) developed three levels of worksite wellness:

- Level one – Awareness – involves providing information through classes, posters, and health fairs without including follow-ups.
- Level two – Lifestyle Change – involves behavior change programs lasting up to 12 weeks.

- Level three – Environmental Change – involves the existence of indefinite behavior change.

According to Reardon (1994), the National Survey of Worksite Health Promotion Activities found that 80% of businesses offered level one education, but that the findings concerning levels two and three offerings were not as promising. Based on the program interest questions, in the current study, respondents showed the most interest in fitness programs (average mean 2.38) and nutrition education programs (average mean 2.42) overall, which would be considered level 1 and level 2 programming. These areas are currently being offered by the university through the Health Club Credit program and the HealthyBlue online tool, however, participation is low (respondents average 27.1% between the two programs).

A stronger emphasis on creating a culture conducive to wellness efforts (level 3 programming) is recommended for this campus. 97% of respondents agreed that a smoke free environment is promoted on campus; however, only 51% agreed that they were encouraged to lead a healthier lifestyle. Less than half of respondents agreed that a strong wellness program is in place for all employees (40%) and that there is a team that oversees all company wellness activities (28%). Only a little over half of respondents agreed that people support others who are attempting to lead healthy lifestyles (55%) and that there are low-fat/healthy foods available on campus (52%).

The limitations of this study included (a) the data collected were self-reported, (b) the reliability and validity of the assessment instrument was not tested, and (c) the clarity of the question sets. First, since the data collected were self-reported, participants may have been hesitant to answer questions on job stress and management support truthfully.

Participants may also have hesitated to answer the demographical questions for fear that they may be identified. Second, the Wellness Council of America (WELCOA) did not test the question sets for reliability and validity. Thirdly, the questions could have been misinterpreted. The program needs and interests portion did not clarify for the participants whether or not they would be expected to pay for the programs listed or if the university would be covering the cost. The participant's answers may have been based on their assumptions of who was covering the cost. Also, the cultural and leadership support portion of the survey did not clarify to the participants who qualified as 'leadership'. Some may have had their direct supervisor in mind when answering the related questions, while others may have had the university president or other executives in mind.

The immunization programs section of the needs and interests survey asked participants how likely they would be to be interested in a Lyme Disease Vaccine. According to the Centers for Disease Control and Prevention, a vaccine for Lyme disease is not currently available. Citing low demand, the manufacturer discontinued the previously available Lyme disease vaccine in 2002 (<http://www.cdc.gov/vaccines/vpd-vac/lyme/default.htm>). Whether or not participants were aware of this information could have affected their response to the question. A lack of education and understanding of the terminology used and the familiarity, or lack thereof, of procedures used in both the immunization and screening programs sections of the needs and interests survey could have affected the way participants answered the questions in those sections. Lastly, it is important to note that it is possible that some of the participants could have mistakenly flipped the Likert scores in their heads while answering the questions (1=Unlikely vs. 1=extremely).

Resulting recommendations for the university include increasing opportunities for faculty and staff to be reminded of their eligibility for the current wellness programs, the benefits of the programs and tools available to them through the programs. A general overall interest in wellness programs was demonstrated through the data (average mean=2.73=somewhat likely). This supports a recommendation for continuing resource allocation to level 1 and 2 programming with a stronger emphasis on fitness and nutrition programs. A leadership support audit at all levels of leadership is also recommended.

Overall, the data collected provide support for further research and a proposal to leadership at the university to invest resources into an employee wellness program. According to Reardon (1994), the best employee wellness programs address wellness as a whole along with prevention and offer a variety of interventions built around the “unique nature of the individuals” (p. 120).

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CHAPTER V. SUMMARY AND CONCLUSIONS

Summary

The purpose of this study was to evaluate the wellness culture of a mid-western university and to identify the health needs and interests of the faculty and staff employed along with current awareness and use of wellness benefits provided to them. The following study objectives were identified:

1. Determine the employees' awareness of the wellness benefits available to them.
2. Determine the employees' participation and utilization of the benefits available to them.
3. Determine employee interest in the development of a worksite wellness program at their university.
4. Determine the employee perception of wellness support in culture and leadership on their campus.
5. Use the data collected through the study to provide support and recommendations to the university.

An electronic survey was sent out through listservs to approximately 2600 faculty and staff. The survey consisted of the following components: (a) an original set of demographic questions specific to this university and (b) wellness program needs and interests, health culture, and management support questions provided through the Wellness Council of America (www.welcoa.org) (See Appendix A).

The participants indicated how likely they would be to participate on a 4-point Likert scale (1-Extremely to 4-Unlikely) in the programs listed in the needs and interests portion of the survey. Participants answered ‘agree’ or ‘disagree’ to the statements listed in the culture and leadership portion of the survey.

A total of 433 employees elected to participate (above our statistical goal of 335 respondents). While not all respondents answered the gender and age questions, of those who did approximately 64% were female compared to the average female faculty and staff population employed of 50.2% (as reported by the human resources office). The demographics were fairly evenly spread across the board for both age and years of service with the university; providing a fair representation of the population.

Conclusions

Increased opportunities for faculty and staff to be reminded of their eligibility for the current wellness programs may be warranted. Knowledge of their eligibility for the HealthyBlue online wellness tool was lacking even though the majority of the respondents were aware of the Health Club Credit program. Utilization of both programs was low for those respondents who reported that they were aware of their existence. Educational literature or presentations that cover the benefits of the programs as well as the tools and information available through the programs could increase engagement and may even help those currently utilizing the programs to see increased benefits.

Ninety-nine percent of respondents agreed that being healthy is important to them. A general overall interest in wellness programs was demonstrated through the data (average mean=2.73=somewhat likely), with a stronger emphasis on fitness and nutrition programs. Respondents agreed that a smoke-free environment is promoted on campus; however, only about half agreed that they have a culture that supports wellness on campus and less than half agreed that they have support from leadership to live a healthier life.

The data collected provide support for further research and a proposal to leadership at the university to invest in an employee wellness program. As outlined in *Healthy People 2010*, the five key elements of a worksite wellness program include health education, supportive social and physical work environment, integration into the organization's structure, linkage to related programs such as employee assistance programs, and worksite health screenings and education. It is recommended for the university to consider these elements and weigh them with the needs and interests of the faculty and staff when determining wellness program priorities.

Recommendations for Future Research

Hunnicuttt (2007) stated that, "if the CEO doesn't feel the burden of responsibility for making sure that they are addressing the health and wellness needs of their workforce, the worksite wellness initiative usually rings hollow" (p. 9). Employees struggle, and cannot improve when they cannot see the future. It is the job of the CEO to clearly define the company's health future. The CEO is also responsible for properly allocating resources to wellness.

Appropriate staffing, a budget, physical space, and employee time allowed for participation in wellness programs must all be considered or program failure is inevitable (Hunnicut, 2007). Further research on the potential relationship between the participants' interest in wellness programs and their perceptions of leadership support for wellness would be recommended.

The data collected in this study address and analyze the participants' interests and perceptions of cultural and leadership support. Further analysis of aggregate data from the Personal Health Assessments taken by faculty and staff who are utilizing the HealthyBlue online wellness tool could provide additional insight to the perceived health and wellness needs. Chapman's (2005) meta-evaluation of worksite health promotion economic return studies makes the case for a clear return on investment in worksite wellness programs, therefore, it would be highly recommended for the university to analyze the real health needs of the employees as well. This can be done by analyzing data provided by their health insurance plan, turn-over, absenteeism, workers' compensation claims, safety/incident reports and biometrics screening data.

Lastly, the survey did not differentiate between the faculty and staff respondents. It may be interesting to analyze the interests and perceptions of faculty versus staff on this campus if and when future surveys are conducted.

The data collected in this study paired with the future recommendations for data collection could potentially serve as a solid foundation to build a proposal to leadership with the end goal of acquiring allocated resources towards an employee worksite wellness program at this mid-western university.

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APPENDIX A. ELECTRONIC WELLNESS QUESTIONNAIR

Electronic Survey to Faculty/Staff

Section 1: Demographics

1. What is your Gender?

- Male
- Female

2. What is your age range?

- 21 and under
- 22-34
- 35-44
- 45-54
- 55-64
- 65 and over

3. How long have you been working for this University?

- 1 year or less
- 2-5 years
- 6-10 years
- 11-20 years
- 21 or more years

4. Are you aware that you have free access to an online wellness tool called HealthyBlue?

- Yes
- No

5. Are you utilizing the HealthyBlue online wellness tool?

- Yes
- No

Section 2: Employee Needs & Interests *(©2005 Wellness Councils of America)*

Please indicate how likely you would be to participate in each of the following programs if they were offered at work during the next year.

(1=Extremely, 2=Likely, 3=Somewhat, 4=Unlikely)

1. Body Fat Testing	1	2	3	4
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2. Educational Programs:

a) Back Safety	1	2	3	4
b) Cancer Prevention	1	2	3	4
c) Heart Disease Prevention	1	2	3	4
d) Stroke Prevention Programs	1	2	3	4
e) Cholesterol Reduction	1	2	3	4
f) Home Safety	1	2	3	4
g) Substance Abuse	1	2	3	4
h) Headache Prevention & Treatment	1	2	3	4
i) Cold / Flu Prevention & Treatment	1	2	3	4

3. Employee Assistance Programs:

a) Depression Treatment	1	2	3	4
b) Financial Management	1	2	3	4
c) Job Stress Management	1	2	3	4
d) Accepting Change	1	2	3	4
e) Parenting Difficulties	1	2	3	4
f) Managing Chronic Health Conditions (diabetes, hypertension ...)	1	2	3	4
g) Managing Chronic Pain (neck , shoulder, back injuries ...)	1	2	3	4
h) Controlling Anger / Emotions	1	2	3	4

4. Fitness Programs:

a) Corporate Fitness Membership Rates	1	2	3	4
b) Exercise Tolerance (STRESS) Testing	1	2	3	4
c) On-Site, Low-impact Exercise Equipment	1	2	3	4
d) Prescribed Exercise Programs	1	2	3	4
e) Stretching Programs	1	2	3	4
f) Walk-Fit Programs	1	2	3	4

5. Immunization Programs:

a) Flu Shots	1	2	3	4
b) Tetanus Shots	1	2	3	4
c) Lyme Disease Vaccine	1	2	3	4
d) Hepatitis 'B' Vaccine	1	2	3	4

6. Nutrition Education Programs:

a) Healthy Cooking (meals/snacks)	1	2	3	4
b) Healthy Eating (do's & don'ts)	1	2	3	4
c) Weight Management Programs (diet & exercise)	1	2	3	4
d) Onsite Vending Machines with Healthy Choices	1	2	3	4

7. Screening Programs:

a) Blood Pressure Checks	1	2	3	4
b) Blood Sugar (diabetes)	1	2	3	4
c) Cholesterol Levels	1	2	3	4
d) Multiphasic Blood Screenings	1	2	3	4
e) Cardiovascular (EKG's)	1	2	3	4
f) Colon / Rectal (cancer)	1	2	3	4
g) Prostate Checks (PSA)	1	2	3	4
h) Stool Checks (bowels)	1	2	3	4
i) Mammograms	1	2	3	4
j) Vision	1	2	3	4
k) Other...Specify_____	1	2	3	4

8. Smoking Cessation Programs 1 2 3 4

9. Stress Reduction Programs 1 2 3 4

10. Time Management Programs 1 2 3 4

11. Visiting On-site Healthcare Nurse 1 2 3 4

12. Self-Help / Self-Care 1 2 3 4

Please indicate how likely you would be to participate in health promotion programs during the following times:

13. Health Promotion Programs

a) Before Work	1	2	3	4
b) During Lunch at Work	1	2	3	4
c) After Work	1	2	3	4

ANY OTHER INTEREST OR SUGGESTIONS (PLEASE SPECIFY) Please list any positive (or negative) comments regarding the impact of the current Wellness Program. Include how this program may have affected you personally. List any suggestions on how we can improve the current program or things you would like to see implemented. Your input is an IMPORTANT element to the success of our program.

Section 3: Wellness Culture Audit (©2005 Wellness Councils of America)

1. I believe that my company cares about my health status.

- Agree
- Disagree

2. Being healthy is important to me.

- Agree
- Disagree

3. In my company, I am encouraged to lead a healthier lifestyle.

- Agree
- Disagree

4. In my company, a strong wellness program is in place for all employees.

- Agree
- Disagree

5. In my company, leaders model good health practices.

- Agree
- Disagree

6. In my company, people who lead healthy lifestyles are rewarded with incentives.

- Agree
- Disagree

7. In my company, people who lead healthy lifestyles are publicly recognized.

- Agree
- Disagree

8. In my company, people support others who are attempting to lead healthy lifestyles.

- Agree
- Disagree

9. In my company, there are low-fat/healthy food options available.

- Agree
- Disagree

10. In my company, a smoke-free environment is promoted.

- Agree
- Disagree

11. In my company, there is a team that oversees all company wellness activities.

- Agree
- Disagree

12. In my company, it is normal for people to exercise during the workday.

- Agree
- Disagree

13. In my company, it is normal for people to eat healthy foods during the workday.

- Agree
- Disagree

14. In my company, it is normal for people to use safety belts.

- Agree
- Disagree

15. In my company, it is normal for people not to smoke.

- Agree
- Disagree

APPENDIX B. PERMISSIONS FROM WELCOA

From: Brittanie Leffelman [bleffelman@welcoa.org]

Sent: Wednesday, February 06, 2013 7:29 AM

To: Tara Roberts

Subject: RE: permissions for thesis

Hi Tara,

Thanks for your recent email. Please use this email as permission to utilize WELCOA's employee interest survey and culture audit to survey your faculty and staff at NDSU as part of your thesis research as outlined below.

If you should need anything else, please let us know. Good luck with your thesis!

Brittanie

Brittanie Leffelman, M.S. | Vice President of Operations

Wellness Council of America

PHONE: 402-827-3590

EMAIL: bleffelman@welcoa.org

From: Tara Roberts [<mailto:Tara.Roberts@my.ndsu.edu>]

Sent: Tuesday, February 05, 2013 1:39 PM

To: WELCOA Well Workplace

Subject: permissions for thesis

Hello!

I am a graduate student at North Dakota State University. I am working on completing my graduate thesis and would like to utilize a couple of your surveys (employee interest, culture, etc.) to survey the faculty and staff at NDSU as part of my thesis research. I want to make sure that I am covering all bases and doing things in an appropriate manner. What type of permissions would I need from WELCOA in order to do this?

I thank you in advance for your time and will look forward to your reply.

Tara Roberts

APPENDIX C. SAMPLE EMAIL INVITATION TO PARTICIPATE

Dear NDSU Faculty/Staff Member,

My name is Tara Roberts and I am a graduate student in the Health, Nutrition, and Exercise Science program here at North Dakota State University (NDSU), and I am conducting a research project to assess the wellness needs and interests as well as the wellness culture of the campus as perceived by the faculty and staff at NDSU. It is our hope, that with this research, we will be able to make recommendations for a comprehensive employee wellness program to serve faculty and staff at NDSU and to assist them in obtaining a higher quality of life. This study has been approved by the North Dakota State University Institutional Review Board and is being supervised by Donna Terbizan, Ph.D., Professor of Health, Nutrition and Exercise Science.

You are invited to participate in this research study. The only criteria for participating in the study is that you must be 18 years of age and an active faculty or staff member of NDSU. Your participation is entirely voluntary, and you may change your mind or quit participating at any time, with no penalty; however, your assistance would be greatly appreciated in making this a meaningful study. If you decide to complete this survey, print off this screen and keep it for your information.

The survey should only take about 10-15 minutes to complete and will include questions related to the following topics:

- Health risks
- Health and productivity
- Program interests
- Awareness of the BCBS-NDPERS wellness benefits
- Participation in and utilization of the BCBS-NDPERS wellness benefits
- Perceived support from management in living a healthy lifestyle
- The current wellness culture on the North Dakota State University campus, as well as some demographic questions to be used for statistical purposes.

To complete the survey, please click on the link below. Your identity will not be linked to your survey responses. Your information will be combined with information from other people taking part in the study, we will write about the combined information that we have gathered. You will not be identified in these written materials. We may publish the results of the study; however, we will keep your name and other identifying information private.

Survey link: http://www.surveymonkey.com/s/Electronic_Wellness_Questionnaire

If you have any questions or concerns about your participation in this study, please feel free to contact myself or Dr. Donna Terbizan at the email addresses provided below. If you have questions about the rights of human participants in research, or to report a problem, contact the NDSU Institutional Review Board (IRB) Office, at (701) 231.8908, toll-free 1.855.800.6717 or ndsu.irb@ndsu.edu.

Thank you in advance for your participation.

Sincerely,

Tara Roberts
tara.roberts@my.ndsu.edu

Donna Terbizan
D. Terbizan@ndsu.edu