Employee Participation in a College Based Wellness Program: Leader Support, Incentives, Job Satisfaction, Absenteeism, and Self-Efficacy

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EMPLOYEE PARTICIPATION IN A COLLEGE BASED WELLNESS PROGRAM:
LEADER SUPPORT, INCENTIVES, JOB SATISFACTION
ABSENTEEISM, AND SELF-EFFICACY

by

Tara Rebekah Rouse

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

May 2016
ABSTRACT

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This study investigated employee participation in a college-based wellness program using the following factors: leader support, incentives, job satisfaction, absenteeism, and self-efficacy. Specifically, the research was conducted to determine whether there was a significant relationship or difference in participation in a college-based wellness program when looking at leader support, incentives, and individual self-efficacy and if participation made any difference on job satisfaction and/or absenteeism. The theoretical framework of this research is based on Bandura’s social learning theory, also known as social cognitive theory, and was supplemented using Ajzen’s theory of planned behavior. This study could be beneficial to organizations trying to improve participation in wellness programs, and it has the potential to not only improve the well-being of employees but also the organization as a whole.
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Submitted to the Graduate School
and the Department of Educational Studies and Research
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
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CHAPTER I
INTRODUCTION

Background

There have been numerous studies conducted through the years on wellness programs implemented in the workplace. Research in the field of wellness has suggested a need to investigate ways to increase and retain employees’ participation in wellness programs because wellness programs are beneficial not only for the well-being of the employees but also for the organization (Bertera, 1990). Links have been established between participation in wellness programs and factors including, for example, incentives, job satisfaction, absenteeism, and self-efficacy. Yet, some researchers in the field of wellness have suggested that studies lack validity due to the fact that research is not always theory-based and that more valid research should be conducted incorporating health behavior theory or combinations of theories. Additional research is needed to determine the differences and similarities of various health behavior theories before advances can be made when conducting research in the field of wellness (Dishman, Oldenburg, O’Neal, & Shephard, 1998; Engbers, Van Poppel, Paw, & Van Mechelen, 2005; Noar & Zimmermann, 2005; Plonczynski, 2000). Also, the National Institute for Health Care Management (2011) stated additional research is needed to determine if leader support is a factor when looking at employee participation in a wellness program.

Research has pointed to several factors that might improve the success of wellness programs implemented in the workplace (Kruger, Yore, Bauer, & Kohl, 2007; Murphy & Cooper, 2000; McCarty & Scheuer, 2005; Rouse, 2009; Wattles & Harris, 2003). For a wellness program to be successful, for example, a survey should first be conducted to
determine what type of program would be most beneficial before implementing the program (Murphy & Cooper, 2000). In addition, others propose that incentives would be useful to increase participation and retention in wellness programs; however, they suggest that future research would be needed to determine what types of incentives should be used to promote wellness in the workplace (Wattles & Harris, 2003). Surveys conducted in 2005 (1,739 employees) and 2007 (52,337 employees) found that employees stated that lack of time was the number one reason they did not participate in a wellness program (Kruger et al., 2007; McCarty & Scheuer, 2005). The 2005 survey compared two employee wellness programs offered at Marshfield Clinic. The first program was called “Work/Life Fitness Around the World” and set an external physical walking goal of 40,000 miles (where each minute of moderate physical activity was equal to 10 miles) in 16-weeks. Also, employees could earn bonus miles by completing specialized activities such as stretch band exercises and a 1-mile walk test. A total of 1,129 employees signed up for the fitness incentive program, and 231 (20.5%) met the 40,000-mile goal. The second program called “Active for Life” had self-identified activity and nutritional goals to reach in 12 weeks. A total of 610 employees participated, and 190 (31%) met their self-identified activity goal and 199 (33%) met their nutritional goal (McCarty & Scheuer, 2005). The 2007 survey used data from the 2004 HealthStyles Survey to assess 52,337 employees’ attitudes toward potential barriers and incentives to promote worksite wellness. The most common barrier reported for not participating in a worksite wellness program was no time available during the workday (42.5%) and no time available before or after work (39.4%). More than 70% of employees reported that the following incentives would increase participation in a worksite wellness program:
convenient time, convenient location, and/or time to participate during the workday (Kruger et al., 2007). Similarly, another survey conducted by Rouse in 2009 collected data from 137 college employees via electronic questionnaire. The survey found that 60% of employees indicated they would participate in a wellness program offered during their workday, stating that the single most important incentive that would increase their participation would be having time available to participate during the workday. This 2009 survey also found that 64% of community college employees preferred a wellness program that incorporated walking (Rouse, 2009).

It is important to note that the terms “health” and “wellness” are used interchangeably in studies by different researchers and no longer refer to simply the lack of disease (Floyd, Mimms, & Yelding, 2008). The following definition will be used for this study: “Wellness is the optimal state of health of individuals and groups. Wellness has two focal concerns: the realization of the fullest potential of an individual physically, psychologically, socially, spiritually, and economically, and the fulfillment of one’s role expectations in the family, community, place of worship, workplace and other settings” (Smith, Tang, & Nutbeam, 2006, p. 340). The primary focus of this study will be on the physical aspect of wellness, comparing participation in an incentive-based and non-incentive-based exercise program offered to community college employees. This study will also provide information regarding how support from the organization’s leaders (department heads), incentives, job satisfaction, absenteeism, and self-efficacy might be related to participation and/or how participation in exercise might have a relationship with certain factors.
In recent years, many organizations have shifted their focus to improving the health of their employees instead of looking for ways to avoid illness. A healthy workplace can be defined as an organization that “maximizes the integration of worker goals for well-being and company objectives for profitability and productivity” (Grawitch, Gottschalk, & Munz, 2006, p. 131). Because organizations are thought by many to have the responsibility of the well-being of their employees, studies have indicated that healthy behavior change involves support from the organization and that any change process must have the support of leadership to succeed (Murphy & Cooper, 2000). Wellness programs implemented in the workplace show employees that the organization deems their well-being to be important (Murphy & Cooper, 2000).

There are many benefits that arise from worksite wellness programs that can improve the overall well-being of employees as well as the organization as a whole. For example, research has found that individuals who participate in wellness programs are more productive, more satisfied with their jobs, and do not miss as many days of work as individuals who do not exercise (Bertera, 1990; Der-Karabetian & Gebharbp, 1986; Mills, Kessler, Cooper, & Sullivan, 2007; Wattles & Harris, 2003). When an organization takes care of its employees, the employees may be able to better take care of the organization (Bertera, 1990; Der-Karabetian, et al., 1986; Mills, et al., 2007; Wattles, & Harris, 2003).

As previously stated, the purpose of this current study is to find if there is a relationship among the following factors of a college-based wellness program: support of leaders (department heads), incentives, employee job satisfaction, employee absenteeism, employee physical exercise self-efficacy, and employee participation in exercise or in a
wellness program implemented at a community college located in rural South Mississippi. This study focused on the physical aspect of wellness and how these factors may or may not be related. The primary goals of this study were to discover what might encourage employee participation in exercise or a wellness program and to improve the overall health and well-being of employees in any organization.

Research Hypotheses

1) There is a relationship between participation in exercise and self-reported support of an institution’s leaders (department heads).

2) There is a difference in participation in an incentive based wellness program (fall 2011) compared to a non-incentive based wellness program (spring 2012).

3) There is a difference in job satisfaction in employees who participate in exercise compared to those who do not participate.

4) There is a difference in self-reported absenteeism for individuals who participate in exercise compared to those who do not participate.

5) There is a relationship between participation in an incentive (2011) and non-incentive (2012) based wellness program and self-reported physical exercise self-efficacy.

Justification

With Mississippi being at the top of the nation’s obesity list, ranking high among states for overall diabetes prevalence, and with cardiovascular disease being the leading cause of death in the state, it is important to develop successful wellness programs for employees in all organizations (World Health Organization [WHO], n.d.b). In addition,
chronic conditions such as obesity are directly linked to heart disease, diabetes, and some cancers, which are extremely costly to our society. It has been suggested that future studies should be conducted to determine the best strategies for increasing participation in wellness programs (Bertera, 1990). Wellness studies identified in Chapter II have found that healthy employees have higher job satisfaction, lower absenteeism, and higher levels of self-efficacy, which are all associated with a more productive and healthy work environment.

Wellness programs similar to the one that will be discussed in this dissertation study can be easily replicated in other organizations and may have the potential to increase job satisfaction and job attendance, which have been found to increase productivity. Many individuals would like to improve their health and/or break bad habits, but their self-efficacy is low and they do not know where to begin. Organizations may need to take an active role in reducing barriers, such as lack of time to participate in physical activity, that have been associated with unhealthy employees and their associated costs. Effective models and strategies in the field of wellness may need to be developed to help support and promote healthy lifestyles and choices within any organization. This study could be beneficial to organizations trying to improve participation in wellness programs, and it has the potential to not only improve the well-being of employees but also the organization as a whole.

Statement of Problem

It is important to note that some researchers in the field of wellness have suggested that some wellness studies lack validity and that more valid research should be conducted containing health behavior theory or combinations of theories. Also,
additional research is needed to determine the differences and similarities of various health behavior theories before advances can be made when conducting research in the field of wellness. In addition, little is known about an organization’s leader support and how it may or may not play a role on employee participation in a wellness program. Additional research is needed to determine if support from leaders or department heads might increase the participation of employees in a wellness program.

Specifically, a major criticism is that some studies include theory in their introduction but did not use it in the application of their research or, in some cases, misinterpreted the terminology. Additionally, researchers found that some of the constructs found within theories were similar in that they measured the same thing but used different terminology (Dishman et al., 1998; Engbers et al., 2005; Noar & Zimmerman, 2005; Plonczynski, 2000). It has also been suggested that researchers should consider the behavioral and social aspects of individuals and organizations, the differences as well as similarities of various theories, and consider using a combination of theories before conducting research in the field of wellness (Dishman et al., 1998; Noar & Zimmerman, 2005; Plonczynski, 2000). For these reasons, the researcher chose to combine aspects of Bandura’s social learning/cognitive theory with aspects of Ajzen’s theory of planned behavior to answer the research questions addressed in this study. Leader support will be addressed utilizing Ajzen’s theory of planned behavior. Incentives, job satisfaction, and self-efficacy will be addressed utilizing Bandura’s social learning/cognitive theory. Absenteeism as an outcome expectation to physical activity was also addressed in this study because previous research has identified it as an
important factor when attempting to improve the well-being of individuals and
organizations.

Theoretical Foundation

There are many theories driving research in the field of health and wellness. For
the purpose of this study the theoretical framework of this research is based on a
combined approach utilizing Bandura’s social learning theory, also known as social
cognitive theory supplemented by Ajzen’s theory of planned behavior. Because of the
similarities and important differences in theoretical models in the field of wellness, this
research is based on multiple theoretical frameworks. The constructs of Bandura’s theory
provide a framework for understanding, predicting, and changing human behavior and
Ajzen’s theory of planned behavior, which emerged from the theory of reasoned action,
to address variables that cannot be controlled by the individual (Ajzen, 2012; Bandura,
1997). Various theories, which will be discussed in Chapter II, were studied and
compared during the course of this research. Several similarities were identified in
Chapter II, and it was found that the use of multiple methods might be most beneficial
when conducting research (Bandura, 2004).

Bandura’s social cognitive theory incorporates behaviorism, cognitivism, and
observational learning and has been called the bridge between behaviorism and
cognitivism (Bandura, 2011). Bandura (2004) addressed health promotion from the
perspective of social cognitive theory, noting that health is more than just an individual
matter; it is also a social one. The theory of planned behavior takes into consideration the
behavioral beliefs or attitudes toward behavior. A normative belief is what individuals
think others who are important to them expect them to do, and a subjective norm is how individuals perceive social pressures of performing the expected behavior (Ajzen, n.d.).

Definition of Terms

The following terms were used throughout this study:

1. *Absenteeism*: total number of days missed at work

2. *Department heads*: the organization’s leadership or the employee’s immediate supervisor

3. *Exercise*: planned, structured, repetitive body movements to develop physical fitness (Liguori & Carroll-Cobb, 2012)

4. *Exercise participation*: workouts performed in any number, any mode, and any place.

5. *Exercise mode*: type of exercise

6. *Frequency of participation*: number of workouts each employee completes

7. *Incentives*: rewards offered to encourage participation in a wellness program

8. *Incentive based wellness program (fall 2011)*: goal oriented/20 workouts, fee based/$40 fee to participate, and incentive based/reward for participation

9. *Job satisfaction*: the individual’s perceived level of satisfaction with his or her job

10. *Leader support*: encouragement to exercise given by department heads or an employee’s immediate supervisor

11. *Level of participation*: total number of employees who participated in physical activity during each wellness program
12. *Non-incentive based wellness program (spring 2012):* no goals, free to all employees, no reward for participation

13. *Physical activity:* movement that involves contraction of muscles and calorie expenditure (Liguori & Carroll-Cobb, 2012)

14. *Physically active questionnaire participants:* number of employees who completed the survey and did workout

15. *Physical exercise self-efficacy:* an individual’s belief that he or she will participate in a physical exercise program (Schwarzer & Jerusalem, 1995)

16. *Questionnaire participants:* number of employees who responded to the survey

17. *Sedentary questionnaire participants:* number of employees who completed the survey but did not workout

18. *Self-efficacy:* the individual’s belief that he or she can achieve a certain outcome (Bandura, 1977)


Assumptions

The following assumptions were made for the purpose of this study:

1) The researcher assumed that community college employees answered the questionnaire truthfully.

2) The researcher assumed that the scales used for this study were reliable as previous studies have indicated or as measured by the Cronbach’s alpha test.
3) The researcher assumed that the sample was representative of all community college employees, employees working at other organizations in Mississippi, and employees working at other organizations across the country.

4) The researcher assumed that employee participation in a college-based wellness program was the same during the fall and spring semesters.

Delimitations and Limitations

1) This study was delimited to employees who were willing to participate and complete the questionnaire.

2) The research may be limited because some individuals may not be truthful when answering self-reported questions.

3) This study could be limited for the reason that some employees’ participation may be different in the fall than in the spring due to the season alone.
CHAPTER II
REVIEW OF RELATED LITERATURE

Health Related Concerns

The purpose of this review of the literature is to summarize relevant research that may help in determining what might encourage employees to participate in a wellness program implemented at work. Physical activity has decreased significantly due to the sedentary nature of the workplace today (WHO, n.d.b). In 2008, the World Health Organization (WHO) reported that approximately 3.2 million deaths were attributable to the lack of physical activity globally. Reasons reported for the decrease in physical activity today include lack of participation in leisure time activities, increase in sedentary behavior at work, and advances in technology (WHO, n.d.a). Physical inactivity has been named the fourth leading cause of global mortality and increases the risk of cardiovascular disease, diabetes, cancer, and obesity (WHO, n.d.b). The WHO reported that physical inactivity contributes to approximately 21-25% of breast and colon cancer, 27% of diabetes, and approximately 30% of ischemic heart disease. Individuals are consuming more calories than they can expend, which is rapidly increasing obesity rates. Obesity has been named the fifth leading risk for global deaths and has been found to increase the risk of chronic diseases such as heart disease, stroke, diabetes, musculoskeletal disorders, and some cancers such as endometrial, breast, and colon (Centers for Disease Control and Prevention [CDC], n.d.). Medical care for individuals with chronic diseases accounted for more than 75% of the nation’s $2.2 trillion medical care cost in 2009, and approximately 17.3 million people die globally from chronic diseases. It is projected that these numbers will continue to rise if no action is taken to
change this alarming trend (WHO, n.d.b). Continued research is important to determine ways to decrease the death rate and costs associated with obesity and chronic diseases resulting from lack of physical activity. Additionally, this review investigates theoretical foundations and research methods that have been used when conducting research in the field of health and wellness.

Some organizations have shifted their focus to improving the health of their employees instead of focusing on ways they can avoid being unhealthy. A healthy workplace can be defined as an organization that “maximizes the integration of worker goals for well-being and company objectives for profitability and productivity” (Grawitch et al., 2006, p. 131). Organizations are thought by some to have the responsibility of the well-being of their employees, with studies indicating that healthy behavior change involves support from the organization and that any change process must have the support of leadership to succeed (Murphy & Cooper, 2000). Although many employee wellness studies have shown the numerous benefits of wellness programs that include physical activity, some employees continue to lack support from their organization to promote and encourage healthy behaviors. Moreover, there is very little research pertaining to participation in a wellness program and how support of organizational leadership might encourage participation.

Research conducted by the Centers for Disease Control and Prevention (CDC) has shown that chronic diseases contribute to an increase in health-related expenses for employees and employers and lead to increased absenteeism and decreased productivity at work. Chronic diseases have been identified as one of the most common and costly health problems. Many businesses have realized the increasing cost of health care and
have begun offering wellness programs to their employees (CDC, n.d.). The American Institute for Preventive Medicine reported that due to the increasing cost of health care in the United States approximately 91% of organizations now offer some type of wellness program compared to 78% a decade ago (Powell, n.d.).

The WHO identifies obesity as one of the direct links associated with chronic diseases, such as cardiovascular disease, which are directly linked to lack of physical activity. The WHO recommends a minimum of 150 minutes per week of physical activity for adults to combat this rising epidemic. The WHO reported that more people die globally from cardiovascular diseases than any other cause. Most cardiovascular diseases can be prevented if people would increase their physical activity, eliminate tobacco use, and eat healthy (WHO, n.d.b).

Participation in Wellness Programs

 Numerous studies have found relationships between fitness levels and employees’ job satisfaction and absenteeism. Studies have found that employees who participate in a wellness program have improved fitness levels, increased productivity, increased job satisfaction, and decreased absenteeism when pre/post assessments are conducted and compared or when compared to individuals who do not participate in a wellness program. Additionally, a relationship has been found between incentives and employee participation in wellness programs (Der-Karabetian & Gebharbp, 1986; Naas, 1992; Ozminkowski et al., 2002; Wattles & Harris, 2003). Wattles and Harris (2003) recommend that incentive programs need to be developed in the workplace to get employees involved in exercise and keep them involved. Wolfe and Parker (1994) examined employee wellness programs and looked at the challenges that companies face
when trying to implement these programs at work. The primary challenge that respondents reported in this study was that lack of time was the number one reason for not participating in a wellness program. The researchers found that incentives such as allowing employees to exercise on company time and offering bonuses for lowering cholesterol levels increased participation in wellness programs. They also found that competition or challenges between departments increased participation (Wattles & Harris, 2003; Wolfe & Parker, 1994).

Kruger et al. (2007) conducted a study to identify not only incentives that could be implemented but also barriers when implementing a wellness program at work. They retrieved data from the Porter Novelli 2004 HealthStyles Syndicated Survey Data database that consisted of results from 2337 employed adults. This survey found that the main barrier that prevented people from participating in a wellness program was the lack of time before or after work. The survey also found earning extra days off work was the major incentive for employees to become involved in an exercise program. The researchers stated that their findings could help others to develop a wellness incentive program and also suggested that there should be future studies to determine if barriers could be reduced, such as work schedules being arranged to allow time for physical activity.

Wellness Programs Implemented at Work

Green, Cheadle, Pellegrini, and Harris (2007) conducted a study of the American Cancer Society’s Active for Life wellness worksite program. The Active for Life wellness worksite program was provided to employees who worked for Group Health Cooperative, a nonprofit health care system in the Pacific Northwest that employed 9800
employees. The program was offered to 3624 of the company’s employees, although only 1167 employees participated in the study, and only 564 completed the program’s three surveys. The program incorporated posters, newsletters, health fairs, walking, and site captains to promote enrollment. It focused on goal setting, self-monitoring, incentives, and team competition. Pre- and post-tests were conducted with all participants at the start of the program, ten weeks later, and again after six months. Incentives included athletic socks, bicycle lights, free lunches, gift cards, and spa packages that were given to individuals who completed the program. These researchers found that the participants’ physical activity increased, fruit and vegetable consumption increased, body mass index did not change, high level of satisfaction did not change, and perceived level of encouragement increased significantly during the 10-week program. Employees reported feeling better overall with an increase in energy as the most important benefits of the program. This study also found that setting goals, making a commitment, and having a pedometer to track steps were reported as the top motivational factors throughout the program.

Naas (1992) reviewed Du Pont’s health promotion intervention program called Health Horizons. Du Pont’s Health Horizons program included training coordinators at 100 sites and administering health risk appraisals every two years. In addition, on-site classes, safety meetings, and self-help options to improve wellness in areas of smoking, cholesterol, high blood pressure, obesity, fitness, stress management, cancer screening, seatbelt use, and AIDS education were offered to participants. The program included environmental changes, fitness, and physical conditioning. Du Pont offered incentives such as books, key chains, canvas tote bags, and recognition. Sixty percent of the
employees at Du Pont took advantage of the company’s health promotion program. Once Du Pont’s program had been in place for two years, Naas (1992) measured the difference on hourly employees’ absenteeism and found that employees’ sick days had decreased by 14%. The decline was equivalent to 11,726 fewer days missed at work as compared to sites that did not have a wellness program.

Ozminkowski et al. (2002) conducted a study to examine a four-year health and wellness program implemented at Johnson & Johnson. Johnson & Johnson invested time and resources into designing a wellness program that would promote high participation with their employees. The company’s goal was to improve health behaviors, reduce risk factors, reduce health care costs, improve absenteeism, improve attitudes, and create a healthy working culture for their employees. The program, called Live for Life, offered a $500 incentive to employees and had a nearly 100% participation rate. The program was developed into an integrated health and disease management program that included a full range of health and productivity management initiatives that focused on employee health, occupational medicine, an employee assistance program, disability management, and health promotion. The results were significant and found a large reduction in medical expenses. The savings came from reductions in hospital use, mental health visits, and outpatient service use. Researchers stated that since this program lasted longer than previous programs, it allowed for more accurate assessment of the impact of a health and wellness program on its employees.

McCarty and Scheuer (2005) conducted a study at Marshfield Clinic for the purpose of describing and evaluating employee fitness programs on site. A Work/Life Program was available to all employees and offered fitness classes, indoor and outdoor
walking paths, and newsletters on wellness related topics. The clinic implemented two wellness programs that offered prizes as incentives once certain goals were met. The first program was called “Work/Life Fitness Around the World” and set an external physical walking goal of 40,000 miles (where each minute of moderate physical activity was equal to 10 miles) in 16-weeks. Also employees could earn bonus miles in the first program by completing specialized activities such as stretch band exercises and a 1-mile walk test. A total of 1,129 employees signed up for the first program, and 231 employees met the walking goal set for the 16-week program. The second program called “Active for Life” had a self-identified activity goal and a goal of eating 5 or more servings of fruits or vegetables at least 5 days per week. A total of 610 employees participated in the 12-week program, 190 met their self-identified activity goal, and 199 met the nutritional goal.

The researchers found that fitness levels (body mass index, heart rate, and blood pressure) improved for employees who completed program one, but due to less than half of the participants completing an assessment at the end of program two, no meaningful statistical analyses could be conducted. Participants in both programs reported feeling better upon completion of the program; however, very few employees participated. Similar to other studies, employees stated that lack of time was the number one reason that they did not participate in the wellness program. The researchers suggested that future studies were needed to determine how to increase employee participation in wellness programs (McCarty & Scheuer, 2005).
Job Satisfaction and Absenteeism

Studies have been conducted for many years and continue to report positive outcomes as a result of employee participation in wellness programs. Der-Karabetian and Gebharbp (1986) conducted a study to determine the effects of employees’ participation in a physical fitness program on job satisfaction, body image, and sick days using a pre-post matched control group. Job satisfaction was measured using the Brayfield and Roth’s (1951) Job Satisfaction Index. The study found employees who participated in and completed the six-month program reported improved job satisfaction and body image. Sick days were measured by collecting data from employees’ personal files. Participants in the control group and experimental group were asked to complete questionnaires at the start of the study and then again at the end of the study six months later. For individuals who completed the six-month program, data collected regarding sick days showed a decrease in absenteeism compared to data collected prior to their participation in the physical fitness program.

Bertera (1990) conducted a study to determine if there was a relationship between workplace wellness programs and non-job related absenteeism. This study compared two groups of hourly employees who worked at 60 separate locations at a US manufacturing company. The intervention program included 41 locations, and the non-intervention program included 19 locations. Both programs had over 700 employees who participated. All of the employees participating were asked to voluntarily complete a health risk appraisal. Questions were asked concerning health status, personal habits, and lifestyle. The program included activities such as exercise, meetings, and counseling. The purpose of the meetings was to educate participants on various health-related topics.
including smoking cessation, fitness, weight control, lipid control, stress management, injury prevention, nutrition, and other health related issues. The study included environmental techniques to improve behaviors by placing heart healthy foods in vending machines and by installing blood pressure and weight machines in high traffic areas. In the conclusion of this study, Bertera reported that employees who participated in the intervention program had a drop of 10.5% in disability days after the first year and a 14% drop by the end of the second year, which resulted in a savings of 11,726 fewer disability days in the intervention program when compared to the non-intervention program over two years. He also suggested that wellness programs would contribute to lowering insurance costs and disability wages. The researcher stated that wellness programs are worthwhile, not only for the well-being of the employees but also for the company, and that future studies should be conducted to ascertain additional information about increasing program participation, activities, and expenditures.

Cowen (2004) studied the relationship between health risk factors and absenteeism in 940 non-academic Oklahoma State University employees and analyzed potential differences in males and females. Cowen’s study included the clinical measurements of height, weight, cholesterol, blood pressure, and body fat. All participants completed a 135-item health risk appraisal to measure additional health and behavioral data. The author found that a relationship existed between health related risk factors and absenteeism but acknowledged these factors were not the only cause. He stated that absenteeism was a complex subject that should take into consideration the dynamic nature of the individual. He suggested that future research should be conducted
to determine any additional reasons why individuals are absent from work other than health-related issues.

Mills et al. (2007) found that a health promotion program offered to 618 employees at a multinational corporation reduced health risk factors, decreased absenteeism, and increased work performance. This quasi-experimental study compared 266 of the original 618 employees who completed the pre- and post-questionnaire in the intervention program to the 1242 of the original 2500 employees who completed the pre- and post-questionnaire in the control population at the end of this 12-month study. They also suggested that differences in company policies regarding attendance and the existence of reward programs for productivity are key factors that should be considered for a broader perspective of health-related absenteeism. Like many others, Mills et al. (2007) indicated that future research should be conducted to determine if a relationship exists between health promotion and absenteeism. Another suggestion was that future studies use randomized controlled trials, stating that one problem with their study was that they used only self-reports to examine health factors, absenteeism, and work performance and no medical examinations or administrative records were used.

Similarly, in a study by Wattles and Harris (2003), research was conducted to determine the relationship between fitness levels and employees’ job satisfaction and absenteeism. The Wattles and Harris (2003) study began by measuring 143 employees’ body composition, cardiorespiratory endurance, flexibility, and muscular strength. Next, employees completed a three-part questionnaire. Part A was developed by the investigator to determine current exercise levels. Part B measured perceived productivity and has been used in other studies by Leutzinger, Blanke, and Steinhardt. Part C
measured employee job satisfaction by using the Brayfeild Rothe scale, a scale also used by Rudman and Steinhardt in their studies. A stepwise regression analyses utilizing backward elimination determined which health-related fitness components predicted each outcome. The Wattles and Harris (2003) study found that employees with increased fitness levels had an increase in productivity, which had a significant relationship with muscular strength, job satisfaction, which had a significant relationship with cardiovascular endurance, and a decrease in absenteeism, which showed a trend with flexibility but was not significant. The researchers concluded that additional studies should be conducted in order to discover ways to get employees involved in exercise programs and to keep them involved. They stated that it is important to determine what types of incentives might work to motivate employees to get involved and stay involved in exercise programs.

Comparisons of Theoretical Approaches

There has been some criticism leveled at research conducted on wellness programs. Dishman et al. (1998) suggested, after looking at 26 different studies, that only poor scientific research had been conducted on participation in wellness programs. They also stated that more valid research was needed on this topic to determine if organizational intervention would increase employees’ participation in a wellness program. The researchers acknowledged that some studies have found health benefits for employees who participated in a wellness program but stated that none had been conducted prior to 1998 that support beneficial results in the workplace. Another criticism from researchers was that theory was lacking in the application of research related to wellness and suggested that additional research should be conducted to
determine the differences and similarities of various health behavior theories before research in the field of wellness can move forward (Dishman et al., 1998; Engbers et al., 2005; Noar & Zimmerman, 2005; Plonczynski, 2000). Since the review of earlier studies in the field of wellness by Dishman et al. (1998), additional research has produced positive findings that have been deemed reliable (Griffin-Blake & DeJoy, 2006). This review of the literature will also investigate several different theories, including Bandura’s social cognitive theory, Ajzen’s theory of planned behavior, and Prochaska and DiClemente’s transtheoretical model that have been used in the field of health and wellness.

Social Cognitive Theory

The social cognitive theory offers ways to inform, enable, guide, and motivate individuals to improve their well-being (Bandura, 2004). Bandura (2004) stated that social cognitive theory has a core set of determinants that include the following: knowledge, perceived self-efficacy, outcome expectations, goals, perceived facilitators, and impediments as can be seen in Figure 1. The social cognitive theory also considers how these determinates might influence behavior and well-being. For example, individuals with increased levels of self-efficacy believe they can accomplish their goals and are internally motivated. Specifically, research has found that a high level of self-efficacy contributes to success and is a significant factor in determining an individual’s health behavior (Bandura, 1997). On the other hand, individuals with decreased levels of self-efficacy do not think they can accomplish their goals and, therefore, need to be externally motivated (Bandura, 2004). Moreover, the measurement of perceived self-efficacy of physical activity has been found to be a reliable tool to assist researchers in
identifying individuals who may need additional encouragement to become active and to help them stay active (Schwarzer & Luszczynska, n.d.).

Setting goals and feedback are important to increase adherence to physical activity, while incentives have also been proven helpful to motivate individuals to continue to participate in physical activity (Bandura, 1997). It has been suggested that pre-assessments and post-assessments are effective incentives because physical self-efficacy increases when individuals see positive changes in their fitness levels (Bandura, 1997). Facilitators and impediments are simply factors that may assist or hinder an individual in making a healthy change (Bandura, 2004).

Theory of Planned Behavior

Icek Ajzen’s theory of planned behavior is another theory that has been used in the field of health and wellness. Ajzen’s theory of planned behavior emerged from the theory of reasoned action to address variables that cannot be controlled by the individual (Ajzen, 2012). As can be seen in Figure 2, the theory of planned behavior is based on the following behavioral beliefs or attitudes toward behavior (Ajzen, 1991): normative belief or subjective norm and control belief or perceived behavioral control. The theory of planned behavior takes into consideration the behavioral beliefs or attitudes toward behavior. A normative belief is what individuals think others who are important to them expect them to do, and a subjective norm is how individuals perceive social pressures of performing the expected behavior. A control belief is how individuals view accessibility to resources and opportunities to achieve a behavior, and perceived behavioral control is how individuals perceive the level of difficulty of achieving the behavior. The theory of planned behavior differs from the theory of reasoned action in that perceived behavioral control was added (Ajzen, 1991). Ajzen (1991) has applied the theory of planned behavior to wellness-related activities such as jogging, biking, boating, and mountain climbing. He states that generally if an individual has a positive attitude and subjective norm towards a particular behavior such as exercise and the greater the individuals perceived behavioral control the more likely the individual will participate in the intended behavior such as exercise.
Transtheoretical Model

A third theoretical approach that has been used in the field of health and wellness is the transtheoretical model, which was first proposed in 1983 by Prochaska and DiClemente when they applied this integrative model of change to smokers (Prochaska & DiClemente, 1983). The transtheoretical model continues to be applied to research in the field of health and wellness and has also been called the health belief model (Griffin-Blake & DeJoy, 2006). As can be seen in Figure 3 and Table 1, the transtheoretical model is comprised of the following five stages of change: pre-contemplation, contemplation, preparation, action, and maintenance. Individuals can advance or regress through these stages at different times throughout their life.

Table 1

Stages of Change Model

<table>
<thead>
<tr>
<th>Concept</th>
<th>Definition</th>
<th>Process of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-contemplation</td>
<td>No recognition of need for or interest in change</td>
<td>Increase awareness of need for change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Personalize information on risks and benefits</td>
</tr>
<tr>
<td>Contemplation</td>
<td>Thinking about change in the near future</td>
<td>Motivate, encourage to make specific plans</td>
</tr>
<tr>
<td>Decision/Determination</td>
<td>Making a plan to change</td>
<td>Assist in developing concrete action plans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Setting gradual goals</td>
</tr>
</tbody>
</table>
Table 1 (continued).

<table>
<thead>
<tr>
<th>Concept</th>
<th>Definition</th>
<th>Process of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action</strong></td>
<td>Implementation of specific action plans</td>
<td>Assist with feedback</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assist with problem solving</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reinforcement</td>
</tr>
<tr>
<td><strong>Concept</strong></td>
<td>Definition</td>
<td>Process of Change</td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td>Continuation of desirable actions, or repeating periodic recommended step(s)</td>
<td>Assist in coping</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reminders, finding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>alternatives, avoiding</td>
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<tr>
<td></td>
<td></td>
<td>slips/relapses (as applies)</td>
</tr>
</tbody>
</table>


The transtheoretical model is comprised of the core concepts listed above. The five stages of change represent an individual’s readiness to change. The first stage is the pre-contemplation stage where an individual with the lowest level of readiness to change would be placed. Individuals in the pre-contemplation stage would be considered least likely to participate in a wellness program. Second is the contemplation stage where individuals are considering making a change by looking at the pros and cons. The contemplation stage has also been referred to as behavioral procrastination. Individuals in the contemplation stage are also not very likely to participate in a wellness program. The third stage is the preparation stage where individuals are ready to take action. Individuals in the preparation stage are likely to participate in a wellness program. The preparation stage is followed by the action stage in which individuals have implemented a behavior change that can reduce their risk of disease. Individuals in the action stage are
more likely to participate in a wellness program. The last stage is the maintenance stage; individuals in this stage have made a behavior change capable of improving their health and have the confidence that they can continue this behavior. Individuals in the maintenance stage are most likely to participate in a wellness program (Prochaska & Velicer, 1997).

Another core concept of the transtheoretical model includes processes of change that are used to progress individuals through all of the stages of change discussed above. The first five processes of change are considered the experiential processes, and they are best used in the early stages of the model. The experiential processes are identified as increased awareness, increased emotions, environmental and social reassessment, social liberation, and self-reevaluation. The additional five processes are considered behavioral processes that are best used in the later stages of the model. They are identified as stimulus control, support, counter conditioning, reward, and self-liberation (commitment). Additional core concepts now included in the transtheoretical model are decisional balance, self-efficacy, and temptation. Decisional balance is explained as an individual’s ability to weigh pros and cons. Self-efficacy has been adapted into this model from Bandura’s self-efficacy theory and is explained as an individual’s confidence level to continue a desired behavior. The last core concept of the transtheoretical model is temptation which reflects an individual’s positive and negative urges (Prochaska & Velicer, 1997).

These three theories, the social cognitive theory, the theory of planned behavior, and the transtheoretical model all have similar aspects and use similar terminology that could be misinterpreted by a researcher. But they also contain important differences.
Social Cognitive Theory vs. The Theory of Planned Behavior

When comparing the social cognitive theory to the theory of planned behavior, Ajzen (1991) compares perceived behavioral control to perceived self-efficacy and states that an individual’s ability to succeed depends on how much the person believes that he/she can succeed or his/her level of self-confidence. He also found that individuals who believe they can change their behavior had a higher success rate than those who did not believe they could change their behavior (Ajzen, 1991). Although there have been significant relationships found between perceived behavioral control and self-efficacy, they are not the same and do not measure the same variables. Perceived behavioral control refers to variables that cannot be controlled by the individual. In contrast, self-efficacy refers to the individual’s self-belief that he/she can achieve a certain outcome (Ajzen, 2002).

Social Cognitive Theory vs. Transtheoretical Model

When comparing the social cognitive theory to the transtheoretical model or health belief model, it can be found that they both include knowledge, outcome expectations, and impediments; however, the transtheoretical model does not include goals or facilitators (Bandura, 2004). The self-efficacy stage of the social cognitive theory and the stages of the transtheoretical model are similar indicators of whether a successful change will be achieved.

In order to determine which approach worked best, Griffin-Blake and DeJoy (2006) compared the effectiveness of social-cognitive and transtheoretical model (stage-matched) approaches to a physical activity intervention program at a large public college located in the southeastern region of the United States. The 366 participants were
randomized into the two physical activity intervention programs, each beginning with a baseline assessment and ending with a follow-up assessment one month later. A total of 366 participants completed the questionnaire that assessed stages of motivational readiness for physical activity, physical activity participation, and exercise-related processes of change, decisional balance, self-efficacy, outcome expectancy, and goal satisfaction at baseline. A total of 208 of the original 366 employees also completed the follow-up assessment at the end of the program. Both intervention programs were designed as a self-help program with minimal-contact, with each employee receiving one of two self-help exercise booklets. One booklet was matched to the individual’s stage of motivational readiness for exercise at baseline, and the other was derived from social-cognitive theory. The researchers also found positive results for both social-cognitive and transtheoretical model (stage-matched) approaches. The researchers found that both approaches were equally effective in motivating participation in physical activity, reporting that 33.9% progressed in the social-cognitive approach and 34.9% progressed in the transtheoretical (stage-matched) approach. In addition this study found changes in behavior to be driven more by decreasing cons (barriers) rather than increasing pros (benefits). The researchers emphasized that behavioral theory is important when developing wellness intervention programs and that interventions should be implemented in the workplace because they are effective (Griffin-Blake & DeJoy, 2006).

Social Ecological Theory

Combinations of Theoretical Approaches. It has been found that using a combination of theories may promote positive changes as found when using the social ecological approach to promoting wellness. The social ecological theory combines
behavioral and environmental approaches when attempting to create an effective health and wellness program. Stokols (1996) analyzed a combination of perspectives in an attempt to explain the social ecological theory in promoting health and wellness in the community. Whereas behavioral models are active and focus on educating and motivating the individual, environmental models are passive and focus on the community or culture as a whole (Stokols, 1996). An example of a behavioral approach would be information given to individuals to make healthy choices about good nutrition. In contrast, an environmental approach is passive and would focus on changing the community or culture as a whole. An example of an environmental approach would be removing all unhealthy food choices in vending machines and replacing them with only healthy options. Stokols’s study stressed that researchers should use a combination of approaches to promote effective changes in health and wellness (Stokols, 1996). Epstein (1998) also stressed that the best way to promote physical activity, i.e. wellness, would be to use a combination of theories drawing from biomedical, social, and behavioral perspectives. Considering multiple theories may serve to enhance available options and promote better decision-making. In contrast, focusing on one theory alone may limit researchers’ attempts to promote increases in physical activity. The author also suggests that the consideration of environmental factors and how they influence physical fitness as well as ways to reinforce physical activity should be topics of future research (Epstein, 1998).

As noted earlier, there appears to be little consensus as to which theoretical approach works best when promoting a health and wellness program; however, researchers have found common threads among the theories discussed above, and similar
positive results have been found when using different theoretical approaches. Some researchers suggest that multiple theories should be considered when motivating individuals and communities/organizations toward wellness.

Additional investigation is needed in order to determine which approach (or combination of approaches) works best. The most effective theoretical approach should be utilized when implementing programs to improve the overall well-being of employees, but researchers have yet to agree on which approach works best. It is important to note that Bandura points out that the social cognitive theory focuses on predictors as well as ways to improve the health habits of individuals, and most health models focus only on predicting health habits. Ajzen’s theory of planned behavior focuses on variables that cannot be controlled by the individual ((Bandura, 2004; Ajzen, 2012). For these reasons and for the purpose of this study, a combined theoretical approach will be taken utilizing aspects of Bandura’s social learning/cognitive theory supplemented by Ajzen theory of planned behavior since the literature has identified both of these theories as effective approaches and has also suggested that utilizing a combination of theories may be best when implementing and promoting a wellness program.

This study has the potential to improve the overall health and well-being of employees in all employment settings. In addition, a successful wellness program has the potential to lower insurance costs, disability wages, improve health and well-being, increase productivity, decrease absenteeism, and increase job satisfaction as found in the review of the literature. For these and other reasons, leaders and department heads in higher education should consider incorporating wellness programs for the benefit of the employees and the organization or institution.
CHAPTER III

METHODOLOGY

As mentioned previously, the purpose of this study was to investigate if there was a relationship among support of leaders (department heads), incentives, job satisfaction, absenteeism, self-efficacy, and employee participation in a wellness program implemented at a community college. This study focused on the physical aspect of wellness and how the variables above may or may not be related. Moreover, this study addressed the following research questions and hypotheses:

Research Questions

1) Is there a relationship between employee participation in exercise and self-reported support of an institution’s leaders (department heads)? The “Wellness Questionnaire” was used to gather data to address this question.

2) Is there a difference in participation in an incentive based wellness program (fall 2011) compared to a non-incentive based wellness program (spring 2012)? Employees exercise participation was tracked through an electronic swipe system, and the number of participants was collected by counting the number of health histories that were submitted at the beginning of each program.

3) Is there a difference in job satisfaction in employees who participate in exercise compared to those who do not participate? The “Wellness Questionnaire” and a “Job Satisfaction Survey” were used to gather data from college employees to address this question.
4) Is there a difference in self-reported absenteeism for individuals who participate in exercise compared to those who do not participate? The “Wellness Questionnaire” was used to gather data to address this question.

5) Is there a relationship between participation in an incentive (2011) and non-incentive (2012) based wellness program and self-reported physical exercise self-efficacy? The “Physical Self-Efficacy Scale,” an electronic swipe system, and employee health histories were used to gather data to address the researchers hypotheses and questions.

Research Hypotheses

1) There is a relationship between employee participation in exercise and self-reported support of an institution’s leaders (department heads).

2) There is a difference in participation in an incentive based wellness program (fall2011) compared to a non-incentive based wellness program (spring 2012).

3) There is a difference in job satisfaction in employees who participate in exercise compared to those who do not participate.

4) There is a difference in self-reported absenteeism for individuals who participate in exercise compared to those who do not participate.

5) There is a relationship between participation in an incentive (2011) and non-incentive (2012) based wellness program and self-reported physical exercise self-efficacy.
Procedure

The following three instruments were used for this study: the “Job Satisfaction Survey,” the “Physical Exercise Self-Efficacy Scale,” and the “Wellness Questionnaire”. Job satisfaction was addressed utilizing the “Job Satisfaction Survey” developed by Bellingham (2004) and self-efficacy was addressed utilizing the health-specific “Physical Exercise Self-Efficacy Scale” developed by Schwarzer and Renner (n.d.). The “Wellness Questionnaire” which included questions developed by the researcher was used to address participation, absenteeism, leadership support, and incentives. Permission was granted from the authors to use both existing instruments prior to submitting the final questionnaire to the Institutional Review Boards. All three instruments were submitted to both the Institutional Review Board of the participating community college and The University of Southern Mississippi for approval. Since the wellness program at the participating community college was changing from an incentive-based wellness program (Fall 2011) to a non-incentive based wellness program (Spring 2012), it was necessary to capture essential information for this study at the close of the 2012 Spring Semester. A letter of approval was obtained from the Institutional Review Board of the participating community college and from the community college president prior to submitting the proposal to The University of Southern Mississippi Institutional Review Board. Once approval was obtained from The University of Southern Mississippi Institutional Review Board, the link to the questionnaire was emailed to all community college employees from the community college president’s office on May 17, 2012. All employees were asked to complete an electronic web-based questionnaire via “SurveyMonkey.” A consent form was also attached to this email that explained the nature of the study, the
time needed to complete the questionnaire, confidentiality, anonymity, and the voluntary nature of the study. An electronic questionnaire was required in order to gather data from community college employees who participated in exercise and those who were sedentary.

Participants

A total of 108 individuals participated in this investigation. All participants were community college employees, and no persons under 18 years of age participated in this study. The population sampled was comprised of faculty, staff, and administrators who were employed on four separate campuses at a community college located in rural South Mississippi.

Instrumentation

Three instruments were used to make up the electronic questionnaire titled “Employee Wellness Questionnaire” that was emailed to all college employees at the end of the non-incentive college-based wellness program (spring 2012). The instruments were the “Job Satisfaction Survey,” the “Physical Exercise Self-Efficacy Scale,” and the “Wellness Questionnaire” developed by the researcher. The following variables were addressed utilizing the three instruments above: leader support, incentives, job satisfaction, absenteeism, and physical exercise self-efficacy. Additionally, the following theoretical constructs were addressed: behavioral capability or knowledge, self-efficacy or physical exercise self-efficacy, outcome expectancy, goals, observational learning, perceived facilitators or reinforcement, and perceived impediments.

Research Question 1 was included to determine if support of leaders (department heads) might be reported as a facilitator/reinforcement to participate in exercise. Data
collected from community college employees in the spring of 2012 were analyzed to assist in answering this research question. In order to determine if leader support might be a factor, each community college employee’s exercise participation was compared to his or her response to the following statements found on the “Wellness Questionnaire:” “I believe support from my department head could influence my participation in a workout program” (question 9, statement 8), “My department head encourages healthy behaviors such as physical activity” (question 9, statement 12), and “I believe support from my department head could influence my participation in a workout program” (question 9, statement 14). Each of these questions was answered using the following five (5) point Likert scale: 1) strongly disagree, 2) disagree, 3) neutral, 4) agree, 5) strongly agree. For this research question, participation was categorized as exercised or did not exercise (question 10 on the “Wellness Questionnaire”) (see Appendix C).

Research Question 2 was used to determine if there is a difference in the number of individuals participating (number of employees in each program) when incentives are offered compared to when no incentives are offered. Data were collected over two semesters for one year in order to compare participation in a college-based employee wellness program offering incentives (2011 Fall Semester) to a college-based employee wellness program with no incentives (2012 Spring Semester). College employees used AccuTrack, an electronic system to swipe their employee IDs at the beginning and end of each workout. This electronic system (AccuTrack) was used to identify participation levels of all employees. Overall participants (total employees) in each program were determined by counting the number of health histories that were submitted at the beginning of each program. As a secondary means of confirming the same data, overall
workouts and overall participants were also captured on the “Employee Wellness Questionnaire” at the end of the 2012 Spring Semester. Having data for both overall employees and for participation allowed calculation of participation.

Research Question 3 determined if employees who participate in exercise are more satisfied with their job than employees who do not exercise. Data collected from community college employees in the spring of 2012 were analyzed to assist in answering this research question. In order to measure employees’ job satisfaction, a questionnaire developed by Bellingham (2004), was used. This instrument is endorsed by the Wellness Councils of America and Bellingham has over 30 years of experience as an organizational psychologist in executive coaching, strategic planning, organizational learning, and leadership development. The “Job Satisfaction Survey” has been reported to be a reliable instrument with an internal consistency of alpha = .91 using the Cronbach’s alpha coefficient for reliability. This job satisfaction survey contains 30 statements related to job satisfaction, which are answered “yes” or “no.” Each positive response on each question is worth 2 points, and a total score of 50-60 indicates the highest satisfaction or “great job.” The theoretical range of the sum of scores for this scale is 0 to 60. Lower scores fall into different categories with 40-49 indicating “good job,” 30-39 points indicating “ok job,” 20-29 indicating “bad job,” and 0-19 indicating a “depressing job” (see Appendix B) (Bellingham, 2004). Community college employees’ job satisfaction scores were compared to their participation in exercise. For this research question, exercise participation was categorized as exercised (one or more times per week) or did not exercise (question 5 on the “Wellness Questionnaire”) (see Appendix
C). A one-way ANOVA was run analyzing responses to question 5 and question 13 pertaining to job satisfaction.

Research Question 4 determined if there is a difference in absenteeism (question 6 on the employee Wellness Questionnaire) between employees who participated in exercise and those who did not, exercise participation (question 5). Question 6 asked employees “How many days of work did you miss this semester?” (see Appendix C). Data from the 2012 Spring Semester non-incentive based wellness program was used to answer this question. For this research question, exercise participation was categorized as exercised (one or more times per week) or did not exercise (question 5 on the “Wellness Questionnaire”). The fourth hypothesis was analyzed using an independent sample t-test for questions 6 (missed days) and 5 (exercise).

Research Question 5 determined if there is a relationship between participation in an incentive (2011) and non-incentive (2012) college-based wellness program and college employees’ self-reported physical exercise self-efficacy. In order to address individuals’ self-efficacy of participation in a wellness program, the Physical Exercise Self-efficacy Scale was used (see Appendix A) (Schwarzer & Jerusalem, 1995). According to Bandura (1997), self-efficacy is a valid predictor of behavioral intentions. The Physical Exercise Self-Efficacy Scale used for this study contains one question with five statements answered on a horizontal numeric scale and has been shown by researchers to be valid (Schwarzer & Renner, n.d.). Schwarzer and Renner (2000) reported the Physical Exercise Self-Efficacy Scale to be reliable with an internal consistency of alpha = .88 using the Cronbach’s alpha coefficient. Self-efficacy was examined in the context of individuals’ responses on the Physical Exercise Self-Efficacy
Scale and participation in exercise. The theoretical range of the sum of scores for this scale is 5 to 20. The question that the Physical Exercise Self-Efficacy Scale asks is “How certain are you that you could overcome the following barriers?” with five statements being answered on a four (4) point scale as follows: very uncertain = 1 point, rather uncertain = 2 points, rather certain = 3 points, very certain = 4 points. The statements follow:

1) I can manage to carry out my exercise intentions even when I have worries and problems.
2) I can manage to carry out my exercise intentions even when I feel depressed.
3) I can manage to carry out my exercise intentions even when I feel tense.
4) I can manage to carry out my exercise intentions even when I am tired.
5) I can manage to carry out my exercise intentions even when I am busy.

Employees who scored higher on the Physical Exercise Self-Efficacy Scale would be considered more likely to participate in a wellness program than employees who scored lower on this scale. For example, if an employee answered very uncertain on all statements, then he or she would score a 5 on a scale of 5 to 20, indicating a very low chance of exercise participation. A lower physical exercise self-efficacy score also identifies individuals who may need additional encouragement to increase their chances of participation. This study compared employees’ physical exercise self-efficacy scores to their exercise participation from the data that was collected on the employees’ health history form and the electronic swipe system. Research Question 5 was analyzed using a Pearson Correlation for exercise and self-efficacy for both the incentive and non-incentive based programs.
Implementation

In an effort to determine the key elements needed to develop a successful wellness program, this study was conducted with participants who were enrolled in an existing wellness program at a community college located in rural South Mississippi. In order to address knowledge, information was distributed to all community college employees at the beginning of the 2011 Fall Semester via email, campus newspaper, fliers, and bulletin boards explaining the benefits of exercise and the incentive based wellness program that was implemented called “Faculty and Staff in Training.” The community college utilized an existing wellness center located on campus to implement the incentive-based wellness program for its employees. The wellness program offered an indoor walking track, treadmills, stationary bikes, elliptical machines, weight equipment, and various exercise classes such as Zumba, Yoga, and Pilates. Employees wishing to participate in the incentive based wellness program paid a $40 membership fee and were challenged to reach a goal of 20 thirty-minute workouts in any mode of exercise during the 2011 Fall Semester. If employees reached their goal of 20 workouts by the end of the 2011 Fall Semester, they earned the opportunity to exercise for free in the Wellness Center during the next semester. Each employee was given an exercise form to record each workout. In addition, exercise visits were also recorded electronically by swiping each employee's ID at the beginning and end of each workout.

In the 2012 Spring Semester, the administration at the community college decided to offer the wellness program to all employees for free. Prior to implementation of the 2012 Spring Semester non incentive-based wellness program, information was again distributed to all community college employees via email, campus newspaper, fliers, and
bulletin boards explaining the benefits of exercise and inviting them to join the Wellness Center at no cost. Employees were asked to fill out a health history form prior to participation in the non-incentive based wellness program. The Physical Exercise Self-Efficacy Scale was added to the health history form to address individual self-efficacy of participation in a wellness program (see Appendix A) (Schwarzer & Jerusalem, 1995). All employees were required to complete a health history form prior to participation in the free 2012 Spring Semester non-incentive based wellness program. Employees’ physical exercise self-efficacy scores and participation rates were captured again with an electronic questionnaire via “SurveyMonkey” that was emailed to all community college employees from the community college president’s office on May 17, 2012, after the program had ended. The researcher compared overall participation in the 2011 Fall Semester (incentive based wellness program) to the 2012 Spring Semester participation (non-incentive based wellness program) to determine which program had greater participation.
CHAPTER IV

RESULTS

The data collected for this study were analyzed, and the results are presented answering the following questions that drove the research:

1) Is there a relationship between employee participation in exercise and self-reported support of an institution’s leaders (department heads)?

2) Is there a difference in participation in an incentive-based wellness program (fall 2011) compared to a non-incentive based wellness program (spring 2012)?

3) Is there a difference in job satisfaction in employees who participated in exercise compared to those who did not participate?

4) Is there a difference in self-reported absenteeism for individuals who participated in exercise compared to those who did not participate?

5) Is there a relationship between participation in an incentive (2011) and non-incentive (2012) based wellness program and self-reported physical exercise self-efficacy?

Procedure

The three instruments used for this study were the “Job Satisfaction Survey,” the “Physical Exercise Self-Efficacy Scale,” and the “Wellness Questionnaire” developed by the researcher. Job satisfaction was addressed utilizing the “Job Satisfaction Survey” developed by Bellingham (2004) and self-efficacy was addressed utilizing the health-specific “Physical Exercise Self-Efficacy Scale” developed by Schwarzer and Renner
(n.d.). The “Wellness Questionnaire” containing questions developed by the researcher was used to address participation, absenteeism, leadership support, and incentives.

Demographic Data

Of the 400 community college employees who were surveyed, a total of 108 completed to the questionnaire. All participants were community college employees, and no persons under 18 years of age participated in this study. The population sampled was comprised of faculty, staff, and administrators located on four separate campuses at a community college located in rural South Mississippi. As can be seen in Table 2, of the 108 questionnaire participants, 32 (30%) were male and 76 (70%) were female. In addition, 30 (28%) reported that they were sedentary and 78 (72%) reported that they were physically active. Additionally, 55 (51%) were faculty, 29 (27%) were staff, 10 (9%) were administrators, 13 (12%) were adjunct faculty, and 1 (1%) did not respond to this question.

Table 2

Demographics of Study Respondents (N = 108)

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<thead>
<tr>
<th>Demographics</th>
<th>( n )</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Gender</td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>32</td>
<td>29.6</td>
</tr>
<tr>
<td>Female</td>
<td>76</td>
<td>70.4</td>
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<tr>
<td>Total</td>
<td>108</td>
<td>100.0</td>
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Table 2 (continued).

<table>
<thead>
<tr>
<th>Demographics</th>
<th>n</th>
<th>Percentage</th>
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</thead>
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<tr>
<td>Employment Category</td>
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<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>55</td>
<td>50.9</td>
</tr>
<tr>
<td>Staff</td>
<td>29</td>
<td>26.9</td>
</tr>
<tr>
<td>Administrator</td>
<td>10</td>
<td>9.3</td>
</tr>
<tr>
<td>Adjunct Faculty</td>
<td>13</td>
<td>12.0</td>
</tr>
<tr>
<td>No Response</td>
<td>1</td>
<td>.9</td>
</tr>
<tr>
<td>Total</td>
<td>108</td>
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<tr>
<td>Campus</td>
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<tr>
<td>Forrest County</td>
<td>31</td>
<td>28.7</td>
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<tr>
<td>Poplarville</td>
<td>73</td>
<td>67.6</td>
</tr>
<tr>
<td>Hancock</td>
<td>1</td>
<td>.9</td>
</tr>
<tr>
<td>Woodall</td>
<td>3</td>
<td>2.8</td>
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<tr>
<td>Total</td>
<td>108</td>
<td>100.0</td>
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<tr>
<td>Age Category</td>
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<tr>
<td>18 to 29</td>
<td>12</td>
<td>11.1</td>
</tr>
<tr>
<td>30 to 39</td>
<td>7</td>
<td>6.5</td>
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<tr>
<td>40 to 49</td>
<td>36</td>
<td>33.3</td>
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<tr>
<td>50 to 59</td>
<td>33</td>
<td>30.6</td>
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<tr>
<td>60 and above</td>
<td>20</td>
<td>18.5</td>
</tr>
<tr>
<td>Total</td>
<td>108</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note. n = sample size from each campus or category; N = total sample size

Analysis of the Research Questions

Research Question 1 was directed toward determining if support of leaders (department heads) might be reported as a facilitator/reinforcement to participate in exercise. Data collected from community college employees in the spring of 2012 were analyzed to assist in answering this research question. In order to determine if leader support might be a factor, each community college employee’s exercise participation was compared to his or her response to the following statements found on the “Wellness
Questionnaire” (developed by the researcher) portion of the “Employee Wellness
Questionnaire:” “I believe support from my department head could influence my
participation in a workout program”(question 9, statement 8), and “My department head
courages healthy behaviors such as physical activity”(question 9, statement 12).
Question 9 was evaluated using the following five (5) point Likert scale: 1) strongly
disagree, 2) disagree, 3) neutral, 4) agree, 5) strongly agree. For this research question,
exercise participation was recoded into two categories, either exercised (onsite wellness
center during work day, onsite wellness center outside of work day, and/or another
location outside of work day) or did not exercise (none) (“Welln
ess Questionnaire,” see Appendix C).

The first research question was analyzed using a one-way ANOVA (q10 and q9
statements 8, 12) that revealed no significant difference between leader support and
participation in exercise $F (3, 103) = .840, p = .475$. Additionally, the Cronbach’s alpha
test was run to measure internal consistency and reliability of the constructs. The
Cronbach’s alpha test was run analyzing question 9 (statements 8, 12, and 14) related to
support. The results found that statement 14 should be deleted, increasing the reliability
from .691 to .872. The analysis above $p = .475$ did not include statement 14.

As can be seen in Table 3, examination of the estimated means found no significant
difference regarding the level of support received by employees who exercised when
compared with that of employees who did not exercise. Of the 107 responding
employees, 84 stated they did exercise, and 23 employees stated they did not exercise.
Table 3

*Means and Standard Deviations for Exercise and Support*

<table>
<thead>
<tr>
<th>Exercise</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onsite Wellness Center during the work day</td>
<td>10</td>
<td>6.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Onsite Wellness Center outside the work day</td>
<td>22</td>
<td>7.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Another location outside the work day</td>
<td>52</td>
<td>6.7</td>
<td>2.0</td>
</tr>
<tr>
<td>None</td>
<td>23</td>
<td>6.5</td>
<td>2.1</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
<td>6.8</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Note. $n =$ sample size; $M =$ Mean; $SD =$ Standard Deviation

Research Question 2 was directed toward determining if there was a difference in overall participation (number of employees in each program) when incentives are offered compared to when no incentives are offered. Data were collected over two semesters for one year in order to compare a college-based employee wellness program offering incentives (2011 Fall Semester) to a college-based employee wellness program with no incentives (2012 Spring Semester). College employees used AccuTrack, an electronic system to swipe their employee IDs at the beginning and end of each workout. This electronic system (AccuTrack) was used to collect participation of all employees. The total number of participants (total employees) in each program was determined by counting the number of health histories that were submitted at the beginning of each
program. Overall workouts and overall participants were also captured on the electronic system “AccuTrack” each time employees swiped in to exercise.

Hypothesis Two was analyzed using a paired sample t-test to compare total number of workouts for each employee who participated in either or both fall 2011 and spring 2012 programs (same individuals from different semesters). The paired sample t-test performed in this study revealed a significant difference between participation in an incentive program compared to a non-incentive program \( t(67) = -2.320, p = .023 \). The non-incentive semester (spring 2012) had greater employee participation than the incentive semester (fall 2011).

Table 4 compared the same employees exercise participation in an incentive program (fall 2011) to their participation in a non-incentive program (spring 2012). Examination of the means in Table 4 showed that employees exercised more in the spring 2012 non-incentive semester than they did in the fall 2011 incentive program. Frequencies were run comparing both programs, showing that more employees participated in the non-incentive program (spring 2012) than the incentive program (fall 2011).
Table 4

Means and Standard Deviations for Program and Exercise

<table>
<thead>
<tr>
<th>Program</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incentive-Exercise</td>
<td>68</td>
<td>7.46</td>
<td>11.6</td>
</tr>
<tr>
<td>(Fall 2011)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Incentive-Exercise</td>
<td>68</td>
<td>11.34</td>
<td>11.2</td>
</tr>
<tr>
<td>(Spring 2012)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. n = sample size; M = Mean; SD = Standard Deviation

Research Question 3 was directed toward determining if employees who participate in exercise were more satisfied with their job than employees who do not exercise. Data collected from community college employees in the spring of 2012 were analyzed to assist in answering this research question. The job satisfaction survey contained 30 statements related to job satisfaction (answered “yes” or “no”). Each positive response on each question is worth 2 points, and a total score of 50-60 indicates the highest satisfaction or “great job.” The theoretical range of the sum of scores for this scale is 0 to 60. Lower scores fall into different categories with 40-49 indicating “good job,” 30-39 points indicating “ok job,” 20-29 indicating “bad job,” and 0-19 indicating a “depressing job” (see Appendix B) (Bellingham, 2004). Community college employees’ job
satisfaction scores were compared to their participation in exercise. For this research question, exercise participation was recoded into two categories; either exercised (one or more times per week) or did not exercise (none) (question 5 on the “Wellness Questionnaire”) (see Appendix C).

Hypothesis Three was analyzed using a one-way ANOVA to determine if there were differences in the average score of participants. The results found that this relationship was not significant $F (4, 102) = 2.269, p = .067$. Additionally the Cronbach’s alpha test was run to measure internal consistency and reliability of the constructs. The test was run analyzing only 29 of the 30 questions used to measure job satisfaction because one of the questions was omitted due to the fact it did not import from SurveyMonkey to SPSS. However the results of this test still showed very high reliability with a coefficient of .927.

Table 5

*Means and Standard Deviations for Exercise and Job Satisfaction*

<table>
<thead>
<tr>
<th>Exercise</th>
<th>$n$</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>30</td>
<td>43</td>
<td>13.4</td>
</tr>
<tr>
<td>Once per week</td>
<td>13</td>
<td>48</td>
<td>10.8</td>
</tr>
<tr>
<td>Two times per week</td>
<td>21</td>
<td>41</td>
<td>13.2</td>
</tr>
</tbody>
</table>
Table 5 (continued).

<table>
<thead>
<tr>
<th>Exercise</th>
<th>$n$</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three times per week</td>
<td>22</td>
<td>50</td>
<td>10.0</td>
</tr>
<tr>
<td>More than three times per week</td>
<td>22</td>
<td>50</td>
<td>11.3</td>
</tr>
<tr>
<td>Total</td>
<td>108</td>
<td>46</td>
<td>12.3</td>
</tr>
</tbody>
</table>

Note. $n =$ sample size; $M =$ Mean; SD = Standard Deviation

Research Question 4 was directed toward determining if there was a difference in absenteeism between employees who participated in exercise and those who did not, using exercise participation (question 5) and responses to question 6 from the “Employee Wellness Questionnaire.” Question 6 asked employees “How many days of work did you miss this semester?” (see Appendix C). Data from the 2012 Spring Semester non-incentive-based wellness program was used to answer this question. For this research question, exercise participation was categorized as exercised (one or more times per week) or did not exercise (question 5 on the “Wellness Questionnaire”).

The fourth hypothesis was analyzed using an Independent Sample $t$-Test for questions 6 (missed days) and 5 (exercise). The results were significant showing there was a relationship between exercise and absenteeism $t (99) = 2.175, p = .032$. Those who exercised missed fewer days than those who did not exercise.
Table 6

*Means and Standard Deviations for Exercise and Absenteeism*

<table>
<thead>
<tr>
<th>Exercise</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>27</td>
<td>3.3</td>
<td>3.1</td>
</tr>
<tr>
<td>One or more times per week</td>
<td>74</td>
<td>1.9</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Note. \( n = \) sample size; \( M = \) Mean; \( SD = \) Standard Deviation

Research Question 5 was directed toward determining if there was a relationship between participation in an incentive (fall 2011) and non-incentive (spring 2012) college-based wellness program and college employee’s self-reported physical exercise self-efficacy. In order to address each individual’s self-efficacy of participation in a wellness program, the Physical Exercise Self-Efficacy Scale was used (see Appendix A) (Schwarzer & Jerusalem, 1995). Self-efficacy was examined in the context of individuals’ responses on the Physical Exercise Self-Efficacy Scale and participation in exercise. The theoretical range of the sum of scores for this scale is 5 to 20. The question that the Physical Exercise Self-Efficacy Scale asks is “How certain are you that you could overcome the following barriers?” with five statements being answered on a four (4) point Likert scale as follows: very uncertain = 1 point, rather uncertain = 2 points, rather certain = 3 points, very certain = 4 points. The statements follow:

1) I can manage to carry out my exercise intentions even when I have worries and problems.
2) I can manage to carry out my exercise intentions even when I feel depressed
3) I can manage to carry out my exercise intentions even when I feel tense.
4) I can manage to carry out my exercise intentions even when I am tired.
5) Employees’ physical exercise self-efficacy scores were compared to their exercise participation.

Research Question 5 was analyzed using a Pearson Correlation for exercise and self-efficacy. This was to compare employees’ self-efficacy scores and participation in an incentive and non-incentive based exercise program. The results found that participation in the incentive program and self-efficacy were not significantly correlated $r(48) = .129, p = .376$. Similarly, participation in the non-incentive program and self-efficacy were not significantly correlated $r(48) = -.020, p = .891$. Additionally, the Cronbach’s alpha test was run to measure internal consistency and reliability of the constructs. The test was run analyzing the five questions used to measure physical self-efficacy. The results of this test showed high reliability with a score of .921.
Table 7

*Means and Standard Deviations for Program Exercise and Physical Self-Efficacy*

<table>
<thead>
<tr>
<th>Program Exercise</th>
<th>n</th>
<th>Minimum</th>
<th>Maximum</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incentive Exercise</td>
<td>68</td>
<td>0</td>
<td>37</td>
<td>7.5</td>
<td>11.6</td>
</tr>
<tr>
<td>Non Incentive Exercise</td>
<td>68</td>
<td>0</td>
<td>37</td>
<td>11.3</td>
<td>11.2</td>
</tr>
<tr>
<td>Physical Self-Efficacy</td>
<td>49</td>
<td>5</td>
<td>20</td>
<td>15.7</td>
<td>4.3</td>
</tr>
<tr>
<td>Valid n (listwise)</td>
<td>49</td>
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</table>

Note. n = sample size; M = Mean; SD = Standard Deviation
CHAPTER V

SUMMARY

Discussion, Conclusions, and Recommendations

The purpose of this study was to investigate if employee participation in a college-based wellness program was related to the following factors: leader support, incentives, job satisfaction, absenteeism, and self-efficacy. Specifically, the research was directed toward determining whether there was a significant difference in participation in a college-based wellness program when looking at leader support, incentives, and individual self-efficacy and if participation had any significant relationship to job satisfaction and/or absenteeism. Of the 400 community college employees who were surveyed, a total of 108 responded to the questionnaire. All participants were community college employees, and no persons under 18 years of age participated in this study. The population sampled was comprised of faculty, staff, and administrators, employed on four separate campuses of a community college located in rural South Mississippi. Of the 108 questionnaire participants, 78 (72%) reported that they were physically active.

The following five research questions were utilized in this study to address social cognitive constructs to help identify successful approaches to increase and/or maintain employee participation in a college-based wellness program.

1) Is there a relationship between employee participation in exercise and self-reported support of an institution’s leaders (department heads)?

2) Is there a difference in participation in an incentive based wellness program (fall 2011) compared to a non-incentive based wellness program (spring 2012)?

3) Is there a difference in job satisfaction in employees who participated in exercise
compared to those who did not participate?

4) Is there a difference in self-reported absenteeism for individuals who participated in exercise compared to those who did not participate?

5) Is there a relationship between participation in an incentive (2011) and non-incentive (2012) based wellness program and self-reported physical exercise self-efficacy?

Closing Remarks

Research Question 1

The researcher hypothesized that a relationship would be found between participation in exercise and self-reported support of an institution’s leaders (department heads). Contrary to the researcher’s belief, the analysis of the first research question revealed that there was no significant relationship between leader support and participation in exercise. However, the study found that 59% of employees stated that they believe support from their department head could influence participation in a workout program. Additionally, as can be seen in Table 3, examination of the estimated means revealed no significant difference regarding the level of support received by employees who exercised when compared with that of employees who did not exercise. Of the 107 employees who responded, 84 stated they did exercise, and 23 employees stated they did not exercise. College employees (93%) who participated in this study affirmed they cared about their health and well-being, and 88% affirmed that they believe regular exercise can improve overall health and well-being.

The questionnaire also addressed other forms of support that could facilitate or reinforce exercise participation such as support from friends/coworkers, support from
family, and support from the wellness program staff (see Appendix C). With 69% of employees stating that they believe support from friends and coworkers would increase their participation in a workout program, even more, 76% of employees stated that they believe support of family would increase their participation, and 60% of employees stated that they believe support from the wellness center staff would increase their participation in a workout program. The researcher suggests that other forms of support should be investigated in future studies.

**Research Question 2**

The purpose of the second research question was directed toward determining if there might be a difference in overall participation (number of employees in each program) when incentives were offered as a facilitator/reinforcement compared to when no incentives were offered.

The researcher hypothesized that a difference would be found in participation in an incentive-based wellness program (fall 2011) compared to a non-incentive based wellness program (spring 2012). The study did reveal a significant difference between participation in an incentive program compared to a non-incentive program. However, the findings were in the opposite direction of what the researcher expected with greater employee participation in the non-incentive semester (spring 2012) than the incentive semester (fall 2011).

Table 4 compared the same employees’ exercise participation in an incentive program (fall 2011) to their participation in a non-incentive program (spring 2012). Examination of the means in Table 4 showed that employees exercised more in the spring 2012 non-incentive semester than they did in the fall 2011 incentive program.
Frequencies were run comparing both programs that showed that more employees participated in the non-incentive program (spring 2012) than the incentive program (fall 2011).

One of the limitations of this study is that the exercise participation could be different in each program due to season alone. This study as well as others found that more people exercise in the spring than in the fall, which increases the need for an incentive program to be offered in the fall. Several reasons why individuals might be more likely to participate in exercise in the spring are due in part to the pleasant weather outside, extended daylight hours, and the fact that many individuals set health and wellness goals as their new years resolution. Without an incentive program being offered there might have been even less participation in the fall. Another reason that the non-incentive program could have had more participation was because it was free to participate. Employees may see a free program as a greater incentive than an incentive program with fees that offers prizes at the end of the program. One more important finding was that not only did more employees participate in the non-incentive semester they also exercised more throughout the non-incentive semester.

The researcher suggests that future researchers should take seasonality into consideration when conducting future studies. One thing that could have been beneficial in this study would have been to compare a fall incentive program to a fall non-incentive program and a spring incentive program to a spring non-incentive program. Based on the findings in this study a free wellness program that also offers incentives may increase participation in the fall and spring semesters.
Research Question 3

The purpose of the third research question was directed toward determining if employees who participated in exercise were more satisfied with their job than employees who did not exercise.

The researcher hypothesized there would be a difference in job satisfaction for employees who participated in exercise compared to those who did not participate. It was an outcome expected by the researcher that individuals who exercise are more satisfied with their job and that job satisfaction could be considered an outcome expectation to exercise participation. Hypothesis three was analyzed using a one-way ANOVA. The results found that this relationship was not significant, $p = .067$. Although the results were close to significant, this study, unlike others in the field, found no significant relationship between exercise and job satisfaction. More than 70% of employees reported that they were satisfied with their job, and 72% of employees reported that they were physically active. Employees satisfaction is a complex topic, and there are many factors that can impact satisfaction.

Research Question 4

The purpose of the fourth research question was directed toward determining if there was a difference in absenteeism between employees who participated in exercise and those who did not.

The researcher hypothesized that there would be a difference in self-reported absenteeism for individuals who participated in exercise compared to those who did not participate. It was an outcome expected by the researcher that individuals who exercised would be absent from work less than individuals who did not exercise. Low absenteeism
from work could be considered an outcome expectation to exercise participation, therefore, could also increase productive in an organization. The results were significant, showing that those who exercised missed fewer days than those who did not exercise. Employees who exercised missed an average of 1.9 days in a semester compared to 3.3 days missed on average for employees who did not exercise. This is an average loss of approximately 59.4 productive workdays or 415.8 hours per semester for sedentary employees compared to 34.2 productive workdays of 239.4 hours per semester for employees who exercise. This is a difference of approximately 25.2 productive workdays missed or 176.4 work hours in one semester when comparing sedentary employees to active employees. Other studies in the field have also found a significant relationship between exercise and absenteeism. Seventy three percent of employees in this study reported that they believed that individuals who exercised on a regular basis miss fewer days of work. This significant finding further supports the importance of exercise and how encouraging or allowing employees to exercise during or after work may help the overall health of the employees and the organization.

Research Question 5

The purpose of the fifth research question was directed toward determining if there was a relationship between participation in an incentive (2011) and non-incentive (2012) college-based wellness program and college employees’ self-reported physical exercise self-efficacy. In order to address individuals’ self-efficacy of participation in a wellness program, the Physical Exercise Self-Efficacy Scale was used (see Appendix A) (Schwarzer & Jerusalem, 1995).
The researcher hypothesized there would be a relationship between participation in an incentive (2011) and non-incentive (2012) based wellness program and self-reported physical exercise self-efficacy. The results found that neither incentive and self-efficacy or non-incentive and self-efficacy had a significant correlation.

In summary, research question one found no significant relationship between participation in exercise and self-reported support of an institution’s leaders (department heads). However, over 50% of employees reported that they believed support from their department head could convince them to participate in exercise. If support from department heads could positively persuade over half of an institution’s employees to participate in exercise, this might be something that institutions should consider when implementing an exercise/wellness program. Research question two found a significant difference between participation in an incentive program compared to a non-incentive program. Institutions should consider not only utilizing leader support when implementing an exercise/wellness program, they should also consider offering a free program that offers incentives for participation. Research question three found no significant relationship between participation in exercise and job satisfaction. It is important to point out that job satisfaction is a complex subject, and there are many factors that can control satisfaction. Whether participation in exercise is one of these was not supported in this study. Institutions considering implementing an exercise/wellness program might however note that this study found that of the more than 70% of employees who reported they were satisfied with their job, and that 72% of them were physically active. Research question four found a significant difference between participation in exercise and absenteeism; therefore, institutions should consider
implementing a free incentive exercise/wellness program utilizing leader support and allowing time within the workday to exercise since in this study, as well as others, found that employees who exercise miss fewer days of work than individuals who do not exercise. This study found a difference of approximately 25.2 productive workdays missed or 176.4 work hours in one semester when comparing sedentary employees to active employees. The days missed in this study were reported only for one semester so this difference in missed productive days and hours would be expected to increase even higher for the year. Research question five found that neither incentive and self-efficacy or non-incentive and self-efficacy had a significant correlation. This result could be due to the low number of employees who completed the physical self-efficacy scale. The researcher suggests that future studies should be conducted comparing more employees than were analyzed in this study.

Individuals may consider conducting future research to determine if offering a free exercise program that also includes prizes for reaching health related goals might be an incentive to facilitate and increase participation in healthy behavior. Additionally, research to determine what can be done to overcome factors that impede participation in a wellness program such as lack of time may be beneficial. This study not only identified some incentives that facilitate or reinforce employee participation but it also identified time as the number one impedance/barrier that employees stated for not participating in an exercise program. Moreover, employees stated that the number one incentive that would motivate them to participate in exercise would be time provided during the workday to participate.
In conclusion, continued research in the field of health and wellness in higher education is vital since Mississippi continues to remain at the top of the nation’s obesity list and ranks high among states for overall diabetes prevalence. With cardiovascular disease being the leading cause of death in the state, it is important that researchers continue to develop successful wellness programs for employees in all organizations. Wellness studies identified in Chapter II have found that healthy employees have higher job satisfaction, lower absenteeism, and higher levels of self-efficacy, which are all associated with a more productive and healthy work environment. It is not surprising that this study found that community college employees who exercised missed fewer days of work than those who did not exercise. Therefore, beyond the benefit of simply having employees engage in healthier behavior is the very real benefit to the organization of having lower absenteeism. This further supports the idea that institutions of higher education and other organizations may need to take an active role in reducing barriers, such as lack of time to participate in physical activity, and encourage their employees to exercise. Offering or encouraging a 30-minute exercise break during the workday and offering other incentives to encourage employees to exercise can reduce barriers. This is consistent with The American Heart Association’s recommendation of at least 150 minutes per week of moderate exercise performed at least 30 minutes per day, five times per week, to improve overall cardiovascular health.

This study could be beneficial to organizations striving to improve participation in wellness programs in order to not only improve the well-being of employees but also the organization as a whole. The benefits of organizational wellness programs may well go beyond the confines of the organization itself. Therefore, partnerships between
organizations and institutions of higher education may provide effective models and strategies in the field of health and wellness to help support and promote healthy lifestyles and choices of not only the employees but also the surrounding community. Finally, as reflected, for example, in the Blue Cross and Blue Shield of Mississippi Foundation’s partnering with institutions of higher education across the state of Mississippi through grant funding, wellness models can be implemented on college campuses and within the surrounding communities.
APPENDIX A

PHYSICAL EXERCISE SELF-EFFICACY SCALE

How certain are you that you could overcome the following barriers?

1) very uncertain, 2) rather uncertain, 3) rather certain, or 4) very certain

1) I can manage to carry out my exercise intentions even when I have worries and problems.
2) I can manage to carry out my exercise intentions even when I feel depressed.
3) I can manage to carry out my exercise intentions even when I feel tense.
4) I can manage to carry out my exercise intentions even when I am tired.
5) Employees’ physical exercise self-efficacy scores were compared to their exercise participation.
APPENDIX B

JOB SATISFACTION SURVEY

Job Satisfaction Survey

1. I look forward to going to work on Monday morning.
2. I feel positive and up most of the time I am working.
3. I have energy at the end of each work day to attend to the people I care about.
4. I have energy at the end of each work day to engage in personal interests.
5. I have the time and energy in my life to read books that interest me.
6. Most interactions at work are positive.
7. I have good friends at work.
8. I feel valued and affirmed at work.
9. I feel recognized and appreciated at work.
10. Work is a real plus in my life.
11. I'm engaged in meaningful work.
12. I feel free to be who I am at work.
13. I feel free to do things the way I like at work.
14. My values fit with the organizational values.
15. I am aligned with the organizational mission.
16. I trust our leadership team.
17. I respect the work of my peers.
18. I have opportunities to learn what I want to learn.
19. I feel involved in decisions that affect our organizational community.
20. Creativity and innovation are supported.
21. I feel informed about what's going on.
22. I know what is expected of me at work.
23. I have the materials and equipment that I need in order to do my work right.
24. I have the opportunity to do what I do best every day at work.
25. My manager cares about me as a person.
26. I know someone at work who encourages my development.
27. My opinions count.
28. My coworkers are committed to doing quality work.
29. My manager reviews my progress.
30. I am fairly compensated.

Answered: YES NO

Give yourself two points for each statement you answered positively. Use the following scale to evaluate your job.

| 50-60 points: Great Job | 40-49 points: Good Job | 30-39 points: OK Job | 20-29 points: Bad Job | 1-19 points: Depressing Job |

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WELLNESS COUNCIL OF AMERICA
APPENDIX C
EMPLOYEE WELLNESS QUESTIONNAIRE

Employee Wellness Questionnaire

Informed Consent

Dear Pearl River Community College Employees,

You are being asked to participate in a study to determine if participation in an exercise-based wellness program implemented at work is related to the organization’s leadership (department heads), job satisfaction, incentives, physical exercise self-efficacy, and absenteeism in a community college setting.

All information you provide will be anonymous; you will not be asked for any identifying information and all responses are confidential. There are no known risks associated with participating and you are free to withdraw from participation at any time without penalty.

This questionnaire will be conducted electronically through SurveyMonkey and will take approximately 15 minutes. The results of this study will be used in a future study following The University of Southern Mississippi and Pearl River Community Colleges institutional Review Board approval. If you have any questions or would like to learn the results of this study, you may contact me Tara Rouse at 601-432-1342 or by email at trouse@prcc.edu. You may also contact Dr. Kyna Shelley, Department of Educational Studies and Research, The University of Southern Mississippi, at 601-256-4578, or by email at kyna.shelley@usm.edu. The results of this study may be used for future research.

Thank you for your participation. What is learned through this study has the potential to improve the wellness programs here at Pearl River Community College and at other institutions. By returning the attached questionnaire, you are indicating your consent to participate in this study. The target date for data analysis is summer 2012.

This project has been approved by the President of Pearl River Community College, and the Pearl River Community College Institutional Review Board. “This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 116 College Drive #5147, Hattiesburg, MS 32406-0501, (601) 256-6820.”

Thank you in advance for your time.

Tara Rouse
Chair of the Department of Health, Physical Education and Recreation &
Director of PRCC Wellness Center

Questions related to job satisfaction were developed by Richard Bellingham, EdD.
Questions related to physical exercise self-efficacy were developed by Ralf Schwarzer and M. Jerusalem.

Questionnaire

1. Gender:

☐ Male
☐ Female
### Employee Wellness Questionnaire

**2. Employment:**
- Faculty
- Staff
- Administrator
- Adjunct Faculty

**3. Location:**
- Forrest County Center
- Poplarville Campus
- Hancock Center
- Woodall Technology Center

**4. Age Category:**
- Below 18
- 18 to 29
- 30 to 39
- 40 to 49
- 50 to 59
- 60 and above

**5. How many days per week did you exercise on a regular basis this semester (spring 2012)?**
- None
- Once per week
- Two times per week
- Three times per week
- More than three times per week

How many years have you exercised on a regular basis leading up to today?

**6. How many days of work did you miss this semester (spring 2012)?**

**7. Of the total number above, how many days were due to illness this semester (spring 2012)?**
### Employee Wellness Questionnaire

#### 8. What type of support would motivate you to exercise?

<table>
<thead>
<tr>
<th>Support from your department head</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support from friends/coworkers</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Support from family</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Support from wellness center staff</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am self-motivated</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

#### 9. Please answer the following by checking one response for each question:

**Department head for the following questions means your immediate supervisor.**

<table>
<thead>
<tr>
<th>Individuals who exercise on a regular basis miss fewer days of work</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe my workouts decreased this semester since I did not have to get 40 workouts for a free semester</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I believe my workouts stayed the same even though I did not have to get 40 workouts for a free semester</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I believe my participation in exercise increased by offering a free membership to all employees this semester</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I do not have time to exercise</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I feel my stress level is high enough to affect my health</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I believe regular exercise could reduce my stress and improve my overall well-being</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I believe my department head supports my participation in physical activity and believes it is important!</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>My department head exercises at least three times per week</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
### Employee Wellness Questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>Very uncertain</th>
<th>Rather uncertain</th>
<th>Rather certain</th>
<th>Very certain</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe my department head cares about my health and well-being</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I care about my health and well-being</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My department head encourages healthy behaviours such as physical activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I believe individuals who exercise on a regular basis are more productive in my office than individuals who do not</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I believe support from my department head could influence my participation in a workout program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Where did you workout this semester?

  - [ ] At work during your workday (approved by your department head)
  - [ ] At work during your workday (approved by the administration but not supported by your department head)
  - [ ] At work outside of your workday
  - [ ] Not at work but at another location
  - [ ] I did not workout this semester

11. How certain are you that you could overcome the following barriers?

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Very uncertain</th>
<th>Rather uncertain</th>
<th>Rather certain</th>
<th>Very certain</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can manage to carry out my exercise intentions even when I have worries and problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can manage to carry out my exercise intentions even if I feel depressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can manage to carry out my exercise intentions even when I feel tense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can manage to carry out my exercise intentions even when I am tired</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can manage to carry out my exercise intentions even when I am busy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12. What was your total number of workouts this semester?

  __________________________
**Employee Wellness Questionnaire**

13. Please answer no or yes to the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>I look forward to going to work on Monday morning.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel positive and upbeat most of the time I am working.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have energy at the end of each work day to attend to people I care about.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have energy at the end of each work day to engage in personal interests.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have the time and energy in my life to read books that interest me.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most interactions at work are positive.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have good friends at work.</td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
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<tr>
<td>I feel recognized and appreciated at work.</td>
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</tr>
<tr>
<td>Work is a real plus in my life.</td>
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<td></td>
</tr>
<tr>
<td>I'm engaged in meaningful work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel free to be who I am at work.</td>
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<td>I have opportunities to learn what I want to learn.</td>
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<tr>
<td>I feel involved in decisions that affect our organizational community.</td>
<td></td>
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</tr>
<tr>
<td>Creativity and innovation are supported.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel informed about what's going on.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Employee Wellness Questionnaire**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know what is expected of me at work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have the materials and equipment that I need in order to do my work right.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have the opportunity to do what I do best every day at work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My manager cares about me as a person.</td>
<td></td>
<td></td>
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<tr>
<td>I know someone at work who encourages my development.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>My coworkers are committed to doing quality work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My manager reviews my progress.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am fairly compensated.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. **Were you an employee of the college the first time you participated in a workout program?**

- No
- Yes

15. **If you did not exercise this semester or exercised very little what incentive would motivate you to participate in exercise?**

16. **What is the biggest barrier that prevents you from participating in an exercise program?**

**Thank you, again, for your participation.**
APPENDIX D

PERMISSION TO USE BELLINGHAM’S JOB SATISFACTION SURVEY

About This Survey

Job Satisfaction Survey
This survey originally appeared in Volume 3, Number 5 edition of Absolute Advantage—a workplace wellness magazine published by the Wellness Council of America. This survey can be used by your organization, but should include appropriate citation.

About The Author

Richard Bellingham, EdD
Richard (Rick) Bellingham, EdD, is the CEO and Founder of iobility, a New Jersey-based consulting firm specializing in aligning human and organizational capabilities behind the corporate mission, vision, and values. He has more than 25 years of experience working in the areas of business transformation, organizational learning, leadership development, team development, and ethical leadership. Dr. Bellingham has established a solid track record in leading management teams to align corporate culture with business strategy, accelerating technology deployment, and coaching executives how to lead change. He has coached senior executives in 50 of the Fortune 500 firms. Visit iobility at www.iobility.com.

About WELCOA

The Wellness Council of America is one of North America’s most trusted voices on the topic of worksite wellness. With over two decades of experience, WELCOA is widely recognized and highly regarded for its innovative approach to worksite wellness. Indeed, through their internationally recognized “Well Workplace” awards initiative, WELCOA has helped hundreds of companies transform their corporate cultures and improve the health and well-being of their most valuable asset—their employees. WELCOA provides worksite wellness products, services, and information to thousands of organizations nationwide. For more information visit www.welcoa.org.

Wellness Council of America (WELCOA)
17002 Marcy Street, Suite 140 Omaha, NE 68118
Phone: 402.827.3590
Fax: 402.827.3594
Email: questions@welcoa.org
APPENDIX E

PERMISSION TO USE THE PHYSICAL EXERCISE SELF-EFFICACY SCALE

Everything you wanted to know about the
General Self-Efficacy Scale
but were afraid to ask
by Ralf Schwarzer, May 20, 2014

There is no other manual of the GSE. This is the only documentation. Don’t send eMails asking for more!

There are currently scale versions adapted to 33 languages. See: http://userpage.fu-berlin.de/~health/selfefc.htm

The purpose of this FAQ is to assist the users of the scales published at the author’s web pages http://www.rifschwarzer.de/ Here you find lots of other resources.

Before attending to the questions below you might want to study our web pages. You might not have any questions after reading the web pages.

Do I need permission to use the general perceived self-efficacy (GSE) scale?

For a permission letter, see page 9. You do not need our explicit permission to utilize the scale in your research studies. We hereby grant you permission to use and reproduce the General Self-Efficacy Scale for your study, given that appropriate recognition of the source of the scale is made in the write-up of your study.

The main source is attached to this FAQ:

An additional source for the German version is:

I am not sure whether I want to measure general perceived self-efficacy (GSE) or specific health-related self-efficacy.

You have to decide which one fits your research question. If you intend to predict a particular behavior you are better off with a specific scale. You might be best off by designing your own items, tailored to your study, such as:

"I am certain that I can do ...xy... even if ...zz..." ( 1 2 3 4 ).

Health specific self-efficacy scales can be found at:
http://userpage.fu-berlin.de/~health/healthself.pdf

For the English version of the teacher self-efficacy scale, see Schwarzer & Hallam (2008).
Permission granted

to use the General Self-Efficacy Scale for non-commercial research and development purposes. The scale may be shortened and/or modified to meet the particular requirements of the research context.

http://userpage.fu-berlin.de/~health/selfscal.htm

You may print an unlimited number of copies on paper for distribution to research participants. Or the scale may be used in online survey research if the user group is limited to certified users who enter the website with a password.

There is no permission to publish the scale in the Internet, or to print it in publications (except 1 sample item).

The source needs to be cited, the URL mentioned above as well as the book publication:


Professor Dr. Ralf Schwarzer
www.ralfschwarzer.de
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the “Adverse Effect Report Form”.
- If approved, the maximum period of approval is limited to twelve months.
  Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 12050808
PROJECT TITLE: Employee Wellness Questionnaire
PROJECT TYPE: New Project
RESEARCHER/S: Tara Rouse
COLLEGE/DIVISION: College of Education & Psychology
DEPARTMENT: Educational Studies & Research
FUNDING AGENCY: N/A
IRB COMMITTEE ACTION: Expedited Review Approval
PERIOD OF PROJECT APPROVAL: 05/16/2012 to 05/15/2013

Lawrence A. Hosman, Ph.D.
Institutional Review Board Chair
Pearl River Community College
Institutional Review Board Decision Letter

The Institutional Review Board (IRB) has completed its review of the following project:

Principal Investigator:  Tara Rouse

Project Title: The Impact of Organizational Department Heads, Self-Efficacy, and Incentives on Participation in Wellness Programs

Funding Agency: N/A

Proposal Number (if applicable): N/A

The determination of the board is that:

✓ This project complies with the institution's policy and procedures regarding use of human subjects in a grant-funded research project (Common Rule Section 101, subsection b). The project may be conducted as planned subject to continuing review as outlined in the Board's procedures.

You are authorized to implement this study as of the date of the final approval. This approval is valid for one year. If the project continues beyond this time frame, the IRB will request continuing review and update of the project.

As stated and agreed upon in your petition to the Pearl River Community College (PRCC) Institutional Review Board, study findings must be shared with the PRCC IRB. In addition, permission and consent of the PRCC IRB is required prior to publication or sharing of your study. Approval is at the sole discretion of the Board.

Please note that you are to notify the IRB immediately if there are any proposed changes that may affect the exempt status of your project and/or any unanticipated or serious adverse events involving risk to the participants.

✓ This project does not comply with the institution's policy and procedures regarding use of human subjects in a grant-funded research project. Concerns of the Institutional Review Board are outlined in an attached document. The Principal Investigator has the right to modify and re-submit the proposal for another review.

[Signature]
Chair, Institutional Review Board

4-26-12
Date
April 26, 2012

Institutional Review Board
The University of Southern Mississippi
118 College Drive
Hattiesburg, Mississippi 39406-0001

Dear Board Members:

Upon approval of The University of Southern Mississippi’s Institutional Review Board (IRB), Tara Rouse has my permission to survey faculty and staff at Pearl River Community College in order to collect data for her research project, The Impact of Organizational Department Heads, Physical Exercise Self-Efficacy, and Incentives on Participation in Wellness Programs, Absenteeism, and Job Satisfaction. I understand that all participation is voluntary and that individual responses will be kept confidential. Further, any changes in the research protocol must be approved by The University of Southern Mississippi’s IRB.

Sincerely,

[Signature]
Dr. William A. Lewis
President
Pearl River Community College
APPENDIX I

PERMISSION TO USE THE TRANSTHEORETICAL MODEL OR STAGES OF CHANGE MODEL

THE UNIVERSITY OF RHODE ISLAND

MEASURES

HERE YOU CAN FIND THE PSYCHOLOGICAL MEASURES THAT HAVE BEEN DEVELOPED AT THE CPRC. ALL MEASURES ARE COPYRIGHT CANCER PREVENTION RESEARCH CENTER, 1991. DR. JAMES O. PROCHASKA, DIRECTOR OF THE CPRC, IS PLEASED TO EXTEND HIS PERMISSION FOR YOU TO USE THE TRANSTHEORETICAL MODEL-BASED MEASURES AVAILABLE ON THIS WEBSITE FOR RESEARCH PURPOSES ONLY, PROVIDED THAT THE APPROPRIATE CITATION IS REFERENCED.

Please Note: All assessment inventories are available for research purposes only and are not for clinical use.

- Smoking
- Alcohol
- Cocaine
- Mammography
- Exercise
- Sun Protection
- Coping & Stress
- Weight Control
- Psychotherapy
- HIV & Safer Sex
- Substance Abuse
- URICA
- Other

SMOKING
APPENDIX J

PERMISSION TO USE THE THEORY OF PLANNED BEHAVIOR DIAGRAM

*You may copy and use this diagram for non-commercial purposes, including publication in a journal article, so long as you retain the copyright notice. Other uses require permission and payment of a fee.
APPENDIX K

PERMISSION TO USE THE SOCIAL COGNITIVE THEORY CHART

Permission to Reprint

Albert Bandura [albertob@o365.stanford.edu]
Thursday, March 24, 2016 7:05 PM
Permission granted.

Albert Bandura

Tara Rouse
Thursday, March 24, 2016 1:38 PM
Dr. Bandura,

Please let me know as soon as possible if I can use your attached chart in my dissertation. It will be properly cited.

Thank you,
Tara Rouse

Tara Rouse

To: bandura@psych.stanford.edu
Attachments:
Screen Shot 2016-03-17 at ~1.png (106 KB)
Thursday, March 17, 2016 3:21 PM
Dr. Bandura,

My name is Tara Rouse and I am a student at The University of Southern Mississippi. I am currently writing my dissertation on employee participation in a college based wellness program and how leader support, incentives, job satisfaction, absenteeism, and self-efficacy may play a role. I would like to ask you if I could use a copy of your figure (attached to this email) found in your publication: Bandura, A. (2004). Health Promotion by Social Cognitive Means. Health Education and Behavior, 31(2), 143-164, in my dissertation. Would you please consider allowing me to use it in my dissertation?

Thank you for writing this article and for your consideration.

Tara Rouse, Chair of Health, Physical Education, and Recreation at Pearl River Community College
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