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# Employee Health and Fitness Programs Within Educational Settings: An Examination of Job Satisfaction and Intent To Stay

Jennifer Lea Malouff

University of Denver, [jennifer.perkins@du.edu](mailto:jennifer.perkins@du.edu)

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EMPLOYEE HEALTH AND FITNESS PROGRAMS WITHIN EDUCATIONAL  
SETTINGS: AN EXAMINATION OF JOB SATISFACTION AND INTENT TO STAY

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A Dissertation

Presented to the Faculty of  
The Morgridge College of Education  
University of Denver

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In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Philosophy

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by

Jennifer Lea Malouff

June 2011

Advisor: Kent Seidel, Ph.D.

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Author: Jennifer L. Malouff  
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Advisor: Kent Seidel, Ph.D.  
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### **Abstract**

Teachers are at the frontline of education and student learning; districts and schools are investigating innovated, yet cost-effective, ways to positively address organizational variables such as job satisfaction and immediate intent to stay. The implementation of employee health and fitness program could be a relatively simple way to not only address these issues but also positively impact the health and overall well-being of all employees. Even with the supporting research regarding employee health and fitness programs, gaps and contradictions still exist; future research is necessary in order to draw conclusions regarding program value and justification. The present study therefore sought to contribute to the knowledge base regarding the correlation between employee health and fitness programs and job satisfaction and intent to stay in the public school settings. A number of district level directors and school level principals from public school districts in the state of Colorado completed an electronic questionnaire regarding the existence of an employee health and fitness program, details about such a program, reasons for sponsoring or not sponsoring such a program and whether or not incentives are linked to such a program. Descriptive statistics and correlations were computed to test several hypotheses. In general, employees in districts and school sites that sponsor employee health and fitness programs seem to have higher job satisfaction than those who work in district and/or school sites that do not sponsor such programs. There was no correlation between a sponsored employee health and fitness program and

immediate intent to stay in education. School districts that sponsor health and fitness programs seem to have higher job satisfaction than employees of school sites that sponsor health and fitness programs. School districts and school sites that sponsor employee health and fitness programs have found a valuable way to impact job satisfaction among their employees. These findings have important implications for school districts and school sites considering sponsoring and implementing a health and fitness program for their employees.

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I dedicate the past four years at the University of Denver and this finished product to my husband and son, Adam and Noah. I aspire to make you proud each and every day and to show you that dreams can come true if you work hard enough and never quit

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## **CHAPTER I**

### **Introduction**

Over the past three decades, school districts have become more interested in employee health and fitness programs to address the increasing demands placed upon the workforce. Two of the many benefits thought to result from organization-sponsored employee health and fitness programs include job satisfaction and intent to stay. Districts are recognizing that having dissatisfied employees leads to high absenteeism, employee health benefit repercussions and high attrition and turnover rates. Unfortunately, districts are battling against major budget cuts and are very apprehensive about spending already stressed revenue resources on programs that lack solid supportive data and could prove to be a “passing fad rather than a lasting innovation” (Conrad, 1987). Creating and maintaining an employee health and fitness program has, until recently, received minimal attention. Individual schools have the potential to compensate for the district’s apprehension and shortfall by developing site-based employee health and fitness programs that address the specific needs of their staff. There are a myriad of ways that schools could address employee job satisfaction and improve intent to stay; implementing an appropriate health and fitness program could prove a relatively simple way to not only address these issues but also positively impact the health and overall well-being of all employees. Such small-scale programs can act as pilot studies to test program effectiveness, feasibility and potential financial implications; results have potential to

positively influence the establishment of district-wide employee health and fitness programs. Since teachers are at the frontline of education and student learning, districts and schools should give serious consideration to sponsoring employee health and fitness programs in order to positively address organizational variables such as job satisfaction and intent to stay.

Organizations began focusing on the employee well-being in the 1930's specific to creating and maintaining a safe workplace environment (Ilgen, 1990; Viteles, 1932). This led to the exploration of other ways organizations could maximize employee manpower and contributions. The 1970's and 1980's brought about experimental corporation-sponsored employee health and fitness programs. It was hoped that such programs would increase employee morale and overall job satisfaction (Ho, 1997). Results from companies such as General Electric (Baun, Bernacki & Tsai, 1986) and Johnson & Johnson (Bellingham & Cohen, 1987; Wilbur, 1983) affirmed this hope; data indicated decreased absenteeism and increased job satisfaction in employees who participated in these corporate-sponsored health and fitness programs. "Healthy people make healthy companies. And healthy companies are more likely, more often, and over a longer period of time, to make healthy profits and to have healthy returns on their investments" (Pritchard, Potter, & Franlel, 1990). Companies can no longer afford to NOT invest in the health of their employees; it is more than just a social responsibility, it is a requirement for the success of companies (Ho, 1997).

Numerous studies have been conducted since the mid-1980's addressing this potential relationship, but many have severely limiting qualities. Such limitations included low number of studies reporting sufficient statistics, insignificant or null

findings, isolated laboratory experiments, small sample sizes, short duration of fitness program intervention, possible ceiling effect (high pre-test scores on surveys), implementation of an entire comprehensive employee health and fitness program containing many components versus a single fitness program, low generalizability and participant self-selection and self-assessed health behaviors and attitudes (Altchiler & Motta, 1994; Gebhardt & Crump, 1990; Ho, 1997; Parks & Steelman, 2008). Even with the supporting research regarding employee health and fitness programs, gaps and contradictions still exist; future research is necessary in order to draw conclusions regarding program value and justification.

It has only been recently that the world of public education has embraced sponsored employee health and fitness programs. Standout district-sponsored employee programs include The Seaside Conference Model, Battle Creek Schools Healthy Lifestyles Program, New York City Health Enhancement Program and Vermont School Boards Insurance Trust PATH Program. Research is limited since such programs within education are in their infancy. Future research is needed to add to the limited body of evidence relating to the value of district and school site sponsored employee health and fitness programs and their effects on job satisfaction and intent to stay.

### **Purpose of Study**

There is a gap in quantitative research linking employee health and fitness programs to job satisfaction and intent to stay. The purpose of this study was to understand whether employee health and fitness programs show any correlation with job satisfaction and intent to stay in public school settings.

In order to examine the existence of possible correlations, two data sets were examined. The first included extant results from the Teaching, Empowering, Leading and Learning Initiative (TELL) Colorado Survey of 2009. TELL Colorado 2009 was a statewide study that aimed to assess all licensed, school-based educators about their perceptions of current state of the teaching and learning conditions in Colorado schools. The survey not only provided basic demographic information, overall perceptions, and new teacher support and mentoring, but also provided valuable data relating to seven major categories: time, resources, community engagement, leadership, decision making, professional development and student learning. The state of Colorado planned to use the results of the TELL Colorado Survey to make critical data-driven decisions specific to policies and practices in hopes to make schools better places to work and learn (Hirsch & Soiberg, 2009). Data were also available at the district and school site levels; those school districts and sites that met sufficient response rate criteria were able to access their own data for use in essential improvement planning specific to teaching and learning conditions. For this study, specific information from two TELL Colorado Survey questions pertaining to employee job satisfaction and immediate intent to stay in education were used to address the purpose of this research study.

The second data set used to address the purpose of this study resulted from the administration of researcher-created questionnaires that collected new information specific to whether or not school districts and school sites sponsored employee health and fitness programs, reasoning about why or why not, details about activity choices within a program and available incentives for participation.

These two data sets were used to answer research questions relating to whether there is a correlation between the existence of a district-sponsored and/or school-sponsored employee health and fitness program and job satisfaction and intent to stay, and whether these relationships were positive when compared to school districts and school without sponsored employee health and fitness programs.

### **Key Definitions**

In order to thoroughly understand the details of this current study, it is crucial to define and clarify specific terminologies used throughout the research. For the purposes of this study:

- *Employee health and fitness program* is defined as an district and/or site-based sponsored program that included one or more of the following components: required physical examinations and screenings, optional physical examinations and screenings, organized physical fitness activities (aerobic and anaerobic), organized recreational activities, wellness workshops, nutrition education, web-based learning and video resources, stress management services and weight management services. Such components are to have a beneficial impact on an employee's current state of physical and psychological health.
- *Job satisfaction* is defined as a person's overall perception and attitude towards their occupation and all that it entails.
- *Intent to stay* (immediate) is defined as the degree to which an employee intends to stay or leave their profession that they are employed within one year's time.

These operational definitions were determined by consideration of the literature review and the necessary elements to thoroughly cover the dimensions of an employee health and fitness program, job satisfaction and intent to stay.

## **CHAPTER II**

### **Literature Review**

The idea of promoting employee health and fitness programs in the workplace has grown in prevalence over the past thirty years. Research has linked employee health to positive organizational outcomes such as increased productivity and job satisfaction, and decreased absenteeism and medical costs (Falkenberg, 1987; Parks, and Steelman, 2008; Voit, 2001; Wattles and Harris, 2003). Employers view employee health as an investment where all parties involved reap continuous benefits. This section will start with a brief overview of evidence relating to general benefits of health and fitness, and then focus on the specific evidence regarding health and fitness in the workplace and job satisfaction effects. The purpose of this present study was to understand whether employee health and fitness programs are a valuable way to explore job satisfaction and intent to stay specific to public school settings.

### **Fitness Effects**

#### **Physical Fitness**

Studies on fitness show an association between physical activity and the reduction of physical and mental disorders of people (US Department of Health and Human Services, 2000). Fitness and physical activity have the power to combat the effects of obesity and cardiovascular disease (Shepard & Balady, 1999) as well as bolsters the overall health of employees (Davies, Davies, & Heacock, 2003). Benefits from



participation in physical activity can include an increase in physical fitness, decrease or maintenance of optimal weight, lowered blood pressure as well as aid in the prevention of chronic diseases including coronary heart disease, type II diabetes, osteoporosis and other musculoskeletal problems and hypertension (Blair, Collingwood, Reynolds, Smith, Hagan & Sterling, 1984; Haskell, Montoye & Orenstein, 1985; Warburton, Nicol & Bredin, 2006). Physical activity also combats against stroke, respiratory disease, cancer and premature death (Paffenbarger, Hyde, Wing and Steinmetz, 1984; Hu, Tuomilehto, Silventoinen, Barengo, Peltonen & Jousilahti, 2005; Warburton et al, 2006). Haines, Davis, Rancour, Robinson, Neel-Wilson and Wagner (2007) investigated a walking intervention programs that promoted worksite wellness and physical activity for college faculty and staff. Among their findings, these researchers observed significant differences in the pre- and post-test results pertaining to BMI (body mass index), blood glucose and total cholesterol levels. The walking intervention also had moderate effects on fitness, mood, health awareness nutrition and overall health. Overwhelmingly, studies have shown that people who participate in physical activity enjoy favorable, extensive health profiles when compared to people who do not participate in physical activity.

### **Psychological Health**

The physical health benefits of physical activity are irrefutable when reviewing the plethora of studies regarding the issue. However, the psychological health benefits relating to physical activity are not as substantial and convincing in comparison.

Colcombe and Kramer's (2003) meta-analysis study examining the influence of physical activity on the cognition of sedentary older adults determined conclusively that

physical activity increased cognitive performance by a 0.5 standard deviation on average. This determination held true regardless of the type of physical activity, type of cognitive task or characteristics of the participants. This study also suggests that physical activity can enhance cognitive vitality of the identified population. Hillman, Erickson and Kramer (2008) concur with these findings. Upon examination of the latest research, evidence supports the claim that participation in physical activity is beneficial to cognition. The need to promote physical activity as a way to prevent, lessen and/or reverse the cognitive decline across the lifespan is highlighted.

A study by Roth and Holmes (1985) investigated the affect of physical activity on the relationship between life stress and illness. They found that people with low participation in physical activity and high life stress developed more problems with depression. The authors suggested that physical activity could be an effective means of reducing the detrimental effects of stress on psychological health for people experiencing unavoidable life stress.

Study findings about the impact of physical activity on mental health are not always as convincing. Fox (1999) reviewed evidence from studies of physical activity and mental well-being. This research found only weak positive evidence relating to the affects of physical activity on cognitive function of older adults. However, there is sufficient evidence to support the effectiveness of physical activity on clinical depression as well as state and trait anxiety, self-perception, self-esteem and mood. This review of research certainly suggests that physical activity should be considered as a viable

treatment option for people dealing with depression, anxiety and decreased mental well-being.

Paluska and Schwenk (2000) reviewed current literature on the potential benefits of using physical activity as treatment of depression and anxiety. Even though available data has led to confusion among professionals, many relevant points are shared. Physical activity may play an important role in lessening symptoms of depression and anxiety. There is no inconclusive evidence that physical activity can prevent the onset of depression. Researchers agree that physical activity can be a simple, inexpensive and noninvasive therapy method when treating depression and anxiety; however, the magnitude of affect is unclear due to intervening variables including type, frequency, duration and intensity of physical activity.

The relationship between physical activity and psychological health benefits is not clear. Evidence is weak, inconclusive and possesses flawed methodologies in comparison to the well-established physical benefits of physical activity (Griffiths, 1996). Regardless of the confusing evidence, organizations are willing to invest time, energy and money into employee health and fitness programs in the hopes to experience positive work-related outcomes through the assumed physical and psychological health benefits.

### **Fitness in the Workplace**

Since the early 1930's, research has examined the relationship between health and fitness and organizational variables that can potentially impact on-the-job behaviors (Ilgen, 1990). People who participate in organized health and fitness activities are more likely to experience higher levels of job satisfaction and productivity as well as lower

levels of absenteeism and turnover (Falkenberg, 1987; Parks, and Steelman, 2008; Voit, 2001; Wattles and Harris, 2003). In addition, fitness and exercise has been shown to have positive affects on both the physical and psychological health of people. With this mounting research, organizations were beginning to view fitness as a way to invest in employee health (Viteles, 1932). Heightened awareness and attention surrounded primarily work environment safety; however more recently, this attention has shifted to include the overall health of employees (Ilgen, 1990). Organizations now understand that health and fitness programs at the workplace have the potential to enhance the health of employees. In addition to employee health, it is hoped that workplace variables such as job satisfaction, intent to stay, stress management and absenteeism are also positively affected.

### **Job Satisfaction**

Job satisfaction has been an important area of study during the 20<sup>th</sup> century. The Human Relations Era forged early interest in job satisfaction when an assumption was made about the connection between job satisfaction and job performance (Kottcamp, Provenzo & Cohn, 1986). Many studies grew from this assumption over the past century.

Over the years, job satisfaction has known many definitions; each with its own nuances. Hoppock (1935) suggested that job satisfaction involved a combination of psychological, physiological and environmental elements that totaled satisfaction with ones job. Job satisfaction is defined as the “affective orientation of individuals towards work roles they are presently occupying” (Vroom, 1964). Locke (1969) defines job satisfaction as one’s perceived relationship between what one want from their job and

what one perceives it as offering; this definition includes a perception about an aspect of a job, a value standard and a conscience judgment about the relationship between the perception and value. Blum and Naylor (as cited in Kaye, 1995) uses “a general attitude of the workers constituted by their approach towards the wages, working conditions, control, promotion related with the job, social relations in the work, recognition of talent, and some similar variables, personal characteristics, and group relations apart from the work life” as their definition for job satisfaction (p.1).

In the late 1930’s, Mayo, Roethlisberger and Dickson formalized the study of job satisfaction by attempting to identify possible variables that effect employee work behavior (Whiteside, 2006). Subsequently, likeminded studies have established relationships between job satisfaction and employee commitment, absenteeism, turnover (Brooke & Price, 1989; Michaels & Spector, 1982; Mobley, Horner & Hollingsworth, 1978; Mowday, Porter & Steers, 1982; Mueller & Price, 1990; Price & Mueller, 1986; Steers & Rhodes, 1978) as well as job characteristics (Loher, Noe, Moeller & Fitzgerald, 1985), personality, opportunity (Agho, Mueller & Price, 1993; Clark, 1996), compensation (wages, benefits and unionization) (Hamermesh, 2001), work values and job rewards (Kallenberg, 1977).

### **Intent to Stay or Leave**

Research has linked job satisfaction to another work-related variable, intent to stay (Cross & Billingsley, 1994; Hellman, 1997). Intent to stay or leave is the degree to which an employee intends to stay or leave the organization in which they are employed. Much of the current research surrounding the relationship between job satisfaction and

intent to stay has occurred within health care/nursing settings (Castle, Engberg, Anderson & Men, 2007; Kovner, Brewer, Greene & Fairchild, 2009). Numerous studies of job satisfaction and intent to stay specific to nursing home staff found high positive associated between the two work variables (Castle et al., 2007; Coward, Hogan, Duncan, Horne, Hilker, Felsen, 1995; Humphris & Turner, 1989; Karsh, Booske & Sainfort, 2005; Kiyak, Namazi & Kahana, 1997; Parsons, Simmons, Penn & Furlough, 2003).

International nursing literature have cited job satisfaction as an important indicator of intent to stay (Cavanagh, 1992; Coomber & Barriball, 2007; Gauci-Borda & Norman, 1997; Strachota, Normandin, O'Brien, Clary & Krukow, 2003). Researchers have established a strong relationship between job satisfaction and intent to stay in the health care field (Irvine & Evans, 1995), yet it would be advantageous to better understand this relationship as it relates to the educational setting. Since job satisfaction can be difficult to measure due to the ceiling effects in an setting (Altchiler & Motta, 1994; Gronningsaeter, Hytten, Skauli, Christensen & Ursin, 1992), a direct correlation between job satisfaction and the value of employee health and fitness programs within educational settings can be examined via intent to stay.

### **Fitness and Job Satisfaction**

Job satisfaction is a work-related outcome variable that researchers have identified as possibly being effected by worksite health and fitness programs (DiLorenzo, Bargman, Renee, Brassington, Frensch & LaFontaine, 1999; Frew & Bruning, 1988; Norvell & Belles, 1993; Parks & Steelman, 2008).

Frew and Bruning (1988) investigated the linkage of a workplace exercise program to job satisfaction and productivity in volunteer hospital employees. Their results indicated that work-sponsored health and fitness programs had a positive impact on job satisfaction as measured by the Job Description Index (JDI). The treatment group (twenty-four week aerobic exercise intervention) produced positive results to job satisfaction when compared to the control group. Norvell and Belles (1993) also found improvements in job satisfaction among state law enforcement officers after participating in a four-month circuit weight-training program. The treatment program consisted of three sessions per week for twenty minutes over a 16-week period. Findings suggest that health and fitness programs, including weight training, can positively effect employee job satisfaction and important psychological variables such as mood and perceived stress.

Parks and Steelman (2008) conducted a meta-analysis of studies that evaluated organizational health and fitness programs relative to job satisfaction and/or absenteeism. Out of 98 potential identified published research reports, a total of 17 met the inclusion criteria of which seven were specific to job satisfaction. The mean effect size of the seven studies was deemed moderate (Cohen, 1969;  $d = .42$ ,  $p < .03$ ) indicating higher job satisfaction for those participating in such programs. The results support the association between an employee health and fitness program and higher job satisfaction, adding to the growing evidence in favor of continued use of employee health and fitness programs in organizations. Comparable results were found in a study conducted by Ho (1997). Ho aimed to determine the impact of corporate health and fitness programs in Singapore organizations on employee outcomes including job satisfaction, work stress and

absenteeism. Higher job satisfaction scores existed among employees of organizations with established health and fitness programs.

Other studies have found positive associations between employee health and fitness programs and job satisfaction (Daley & Parfitt, 1996; Voit, 2001; Wattles & Harris, 2003). These studies add to the valuable insight into possible benefits of employee health and fitness programs in the workplace.

Significant results between workplace health and fitness programs and job satisfaction are not always found (Altchiler & Motta, 1994; Edward and Gettman, 1980; Marshall, 2004; Proper, Staal, Hildebrandt, van der Beek & van Mechelen, 2002). Edward and Gettman (1980) investigated the effects of a worksite aerobic training program on sedentary real estate investment brokers. The training program involved aerobic exercise for thirty minute or more for most days of the workweek. Data showed an improvement in participants' aerobic fitness but no improvement in job satisfaction was found. Similarly, Altchiler and Motta (1994) investigated the effects of aerobic and nonaerobic exercise on, among other work-related variables, job satisfaction within a worksite setting. They too, concluded that aerobic exercise is a powerful mechanism to improve physical and psychological health (state and trait anxiety); however, no improvement in job satisfaction was found over the eight-week study.

DeGroot and Kiker (2003) conducted a meta-analysis of 22 studies relating to the direction and magnitude of the effects of employee health and fitness programs on job performance, job satisfaction, absenteeism and turnover. Out of the twenty-two studies only six examined the relationship specific to job satisfaction. Study results were



combined and showed little effect of employee health and fitness programs on job satisfaction ( $r = .05$ ,  $N = 2410$ ). These findings did not support the study's hypothesis that participants of employee health and fitness programs would have higher job satisfaction.

Proper et al. (2002) reviewed eight studies all specifically related to the effectiveness of organized physical activity (PA) programs at worksites with respect to work-related outcomes (absenteeism, job satisfaction, job stress, productivity and employee turnover). Of these eight studies, four were identified as investigating the effect of a worksite organized physical activity program on job satisfaction. Two of these studies found no significant effect for the PA interventions; one showed a negative effect of an organized PA program on job satisfaction and the last study showed a positive effect of an organized PA program on job satisfaction. The result of this meta-analysis was inconclusive for job satisfaction. This study supports the findings of Nurminen, Malmivaara, Ilmarinen, Ylostalo, Mutanen, Ahonon and Aro (2002) and Oden, Crouse and Reynolds (1989) that weekly exercise and physical activity are not effective in increasing job satisfaction.

Two studies even showed a negative relationship between employee health and fitness programs and job satisfaction (Gronningsaeter et al., 1992; Pavett, Bulter, Marcinick & Hodgdon, 1987). Pavett et al. (1987) investigated work attitudes of US Navy and Marine Corps men towards a circuit-training program. Participant reactions to the program were negative, and internal job motivation and job satisfaction declines significantly. Unlike most worksite health and fitness programs, these military men were

strongly encouraged to participate; decreased job satisfaction could have resulted from their perceived lack of choice involved in the decision. In addition to the lack of choice in participation, this study experienced high baseline data for fitness and work attitudes and the circuit-training program typically took place early in the morning. Pavett et al. (1987) caution against generalizing the study's findings to other worksite employee health and fitness programs and employees due to its limitations.

In the Gronningsaeter et al. study (1992), 76 physically inactive employees from an insurance company were randomly assigned to one of three groups: aerobic exercise program, stress management program, control group. Participants completed pre- and post-testing in various physiological, psychological and work-related variables. The exercise results indicated an improvement in employee aerobic capacity, well-being and physiological health; however, job satisfaction decreased. Results may be due to the high pre-test job satisfaction scores, otherwise know as the ceiling effect (Altchiler & Motta, 1994).

Overall, employee job satisfaction is an organizational variable that could potentially be affected by participation in a worksite health and fitness program. Empirical results are inconsistent and not clear. Future research is necessary for greater understanding of how employee health and fitness programs relate to organizational variables such as employee job satisfaction, turnover and absenteeism (Marshall, 2004). With all the current budget cuts impacts many public and private organizations, organizational leaders may be less likely to invest in or tempted to eliminate employee

health and fitness programs if evidence does not show positive effect on variables including job satisfaction (Wattles & Harris, 2003).

### **Health and Fitness Programs Within Education**

Fitness within education received limited attention throughout the first half of the twentieth century. According to Healthy People 2020, this limited attention oftentimes was related specifically to international competition regarding military superiority, industrial and technological achievements and overall status among the top super-power countries of the world. In 1956 President Dwight D. Eisenhower, upon learning that about the results of a report that indicated that American children were less fit than European youths, established the President's Council on Youth Fitness. In 1963, President John F. Kennedy changed the name to the President's Council on Physical Fitness as well as expanded the mandate to all Americans as well as youth. The President's Council has continued to evolve over the past several decades. It now includes physical fitness, sports and nutrition, and promotes daily moderate physical activity for disease prevention and health; vigorous physical activity, stretching, and strength training for fitness and added health benefits; and sports participation, including the values of sportsmanship. Under the leadership of President Barack H. Obama, the mandate continues to transform and, as of 2010, is known as the President's Council on Fitness, Sports and Nutrition.

In the mid 1980's, the theory of coordinated school health (CSH) was introduced into public education. CSH is a systematic way for schools to improve students' academic performance and overall physical health and well being through health

promotion (Joyner, 2007). A CSH program includes eight essential components: health education, physical education, health services, nutrition services, counseling and psychological services, healthy school environment, health promotion for staff and family and community involvement. The inclusion of health promotion for staff as one of the eight essential components placed emphasis on the importance of staff health in the educational world. Health promotion for employees can take many forms: screenings, educational and supportive activities, organized policies promoting healthy work environments, employee assistance programs and employee health care plans and services. Connections began to develop between staff health programs and school- and district-wide benefits: reduced expenditures, duplication and absenteeism as well as improved staff morale and increased teamwork and teacher support. According to Blair et al. (1984), staff that participated in health promotion programs associated with CSH including exercise, stress management and nutrition were more likely to report increased participation in physical activities, reduction in weight, improved ability to handle job related stress and high levels of general well being. Blair, Collingwood, Reynolds, Smith, Hagan and Sterling (1987) stated that health promotion for staff positively influences productivity, absenteeism and overall commitment to the teaching environment. In addition, CSH programs can help educational staff become better role models for students, do a better job teaching and create a better working and learning environment for all stakeholders (Joyner, 2007). Although CSH programs focus primarily on the health and wellness of students, they also spotlight the importance of

health promotion for the staff. Such programs not only impact the healthy of the staff, but also can a positive effect on students, families and community members.

According to the National Center for Education Statistics, U.S. schools employ approximately 6.7 million workers including teachers, school administrators, instructional support staff and others (2005). Given the large number of employees within the country's educational system, districts and schools have the potential of being ideal settings for sponsored employee health and fitness programs. In addition, districts and schools already come equipped with the necessary fitness facilities and trained fitness staff to support such a program (Eaton, Marx & Bowie, 2007). Since past studies of employee health and fitness programs and organizational outcomes such as job satisfaction, productivity, absenteeism and turnover in private organizations have shown positive results (Falkenberg, 1987; Parks, and Steelman, 2008; Voit, 2001; Wattles and Harris, 2003), it could be postulated that these results are generalizable to districts and schools (Eaton et al., 2007).

### **District Sponsored Programs**

Even though a plethora of research exists associating job satisfaction and employee health and fitness program relative to private organizations, little research has been conducted within the public educational setting. Blair et al. (1984) were among the first to evaluate program effects in a health promotion program for educators. They investigated possible impacts of such a program on educators' health behavior, job satisfaction and general well-being. One hundred seventeen randomly selected participants received a ten-week health promotion program intervention that emphasized

exercise, stress management and nutrition. Pre- and post- survey data were collected on health knowledge, stress levels, self-concept, general well-being, job satisfaction and physical fitness. Comparative results between intervention group and control group indicated, among others, increased level of rigorous exercise participation, higher levels of general well-being, job satisfaction and self concept and increased ability to handle job stress.

Allegrante and Michela (1990) examined a district-sponsored employee health and fitness program and its impact on job satisfaction. For their study, they selected a New York City community school district where a workplace health and fitness promotion program was implemented for employees in ten random school sites. Employees from the intervention sites and comparison sites completed a pre-test and post-test job satisfaction survey. The intervention programs included stress management, nutrition education, healthy back, fitness, weight control and recreational activities and last approximately eight weeks. Results from this study indicate that the workplace employee health and fitness program had a significant impact on teachers' job satisfaction and morale. The researchers did caution against making implications that such a program is the optimal or preferred solution to employee job satisfaction and morale in schools due to its many limiting factors. The statistical significance from this study was positive but small in magnitude, issues with random assignment of the intervention occurred, low pre-test job satisfaction results from comparison group were collected, equivalence of schools were assumed and the generalizability of results is questionable.

Ward and Phillips (1993) examined a non-experimental school health promotion and fitness program in Vermont. The Vermont School Board Insurance Trust initiated the Planned Action Toward Health (PATH) in 1991 in its state's schools. The purpose of this program was to assist school employees to develop healthy lifestyles. The PATH program sponsored in-service programs, exercise equipment, training for program coordinators, after-school activities, meetings and newsletters and was supported with small grants from the Trust that schools competed for. A secondary purpose of PATH was to make employees healthy role models for students within the schools in order to promote healthy living for all ages. The PATH program in Vermont was considered a success; it was inexpensive to begin and maintain as well as recognized as an effective way to positively affect school employee health and fitness.

### **School-site Sponsored Programs**

Research focused on school site-sponsored employee health and fitness programs is extremely rare. In 1984, leaders of Michigan's Battle Creek Schools developed and organized a school-site employee health and fitness promotion program in order to promote and improve the district's comprehensive health program (CHP) in its schools (Falck & Kilcoyne, 1984). The employee health and fitness promotion program involved physical fitness and aerobic activities, staff competitions, stress management, accident prevention and stop smoking campaigns/counseling. This employee health and fitness program was only a fraction of the entire CHP; other portions included student health, health instruction and curriculum, student fitness testing, school lunch program and nutritional services as well as family and community partnerships for healthy children.

Program outcomes were not published, but information relating to decreased employee absenteeism during the first year implementation was reported. This school-site program was non-experimental in nature, which helps to understand and explain why specific program data is unavailable.

Due to the limited number of research studies focused on employee health and fitness programs and job satisfaction in educational settings (districts and school sites), current results are promising but narrow. Additional research in educational settings is required in order to convincingly determine type and degree of impact an employee health and fitness program has on job satisfaction. Once this research foundation is established, leaders within school districts and school sites can make informed decisions regarding the value of sponsoring employee health and fitness programs.



## CHAPTER III

### Methods

All participating Colorado school districts and school sites in the *Teaching, Empowering, Leading & Learning Initiative (TELL) Colorado* survey during May 2009 that met or exceeded the fifty percent response rate were invited to participate in a research study that assesses whether sponsored employee health and fitness programs show a correlation with job satisfaction and intent to stay specific to a public school setting. Although related literature suggested that organization-sponsored employee health and fitness programs could have positive effects on job satisfaction and intent to stay, these effects have not been examined large scale with employees of public school settings. The first goal of this present study was to determine whether there is a correlation between the existence of a district-sponsored and/or school-sponsored employee health and fitness program and job satisfaction and intent to stay. The second goal of this study was to determine if these relationships were positive when compared to school districts and school without sponsored employee health and fitness programs.

#### **Research Question(s):**

1. Is there a relationship between the existence of a school site-sponsored employee health and fitness program and job satisfaction?
2. Is there a relationship between the existence of a district-sponsored employee health and fitness program and job satisfaction?

3. Is there a stronger relationship between a district-sponsored employee health and fitness program and employee job satisfaction than a school site-sponsored employee health and fitness program?
4. Is there a higher level of job satisfaction among employees of school districts that sponsor employee health and fitness programs when compared to school districts that do not sponsor such a program?
5. Is there a higher level of job satisfaction among employees of schools that sponsor employee health and fitness programs when compared to school sites that do not sponsor such a program?
6. Is there a relationship between the existence of a school site-sponsored employee health and fitness program and employees' intent to stay?
7. Is there a relationship between the existence of a district-sponsored employee health and fitness program and employees' intent to stay?
8. Is there a stronger relationship between a district-sponsored employee health and fitness program and employee intent to stay than a school site-sponsored employee health and fitness program?
9. Is there a higher level of intent to stay among employees of school districts that sponsor employee health and fitness programs?
10. Is there a higher level of intent to stay among employees of schools that sponsor employee health and fitness programs?

**Hypotheses:**

Hypothesis 1: There is a relationship between the existence of a school site-sponsored employee health and fitness program and employee job satisfaction.

Hypothesis 2: There is a relationship between the existence of a district-sponsored employee health and fitness program and employee job satisfaction.

Hypothesis 3: There is a stronger relationship between a district-sponsored employee health and fitness program and job satisfaction than a school site-sponsored employee health and fitness program and employee job satisfaction.

Hypothesis 4: Employee job satisfaction is higher within school districts that sponsor employee health and fitness programs.

Hypothesis 5: Employee job satisfaction is higher within school sites that sponsor employee health and fitness programs.

Hypothesis 6: There is a relationship between the existence of a school site-sponsored employee health and fitness program and employees' intent to stay.

Hypothesis 7: There is a relationship between the existence of a district-sponsored employee health and fitness program and employees' intent to stay.

Hypothesis 8: There is a stronger relationship between a district-sponsored employee health and fitness program and employee intent to stay than a school site-sponsored employee health and fitness program and employee intent to stay.

Hypothesis 9: Employee intent to stay is higher within school districts that sponsor employee health and fitness programs.

Hypothesis 10: Employee intent to stay is higher within school sites that sponsor employee health and fitness programs.

### **Extant Data for Current Study**

#### **TELL Colorado (Teaching, Empowering, Leading and Learning Initiative)**

All licensed, school-based educators in public education in Colorado were invited to participate in the TELL Colorado Survey, administered by the Colorado State Department of Education and the New Teacher Institute between April 13 – May 11, 2009. The TELL Colorado Survey is based on the North Carolina Teacher Working Conditions Survey with slight customized modifications. Analyses of the psychometric soundness of the TELL Colorado Survey indicate that it is a reliable ( $\alpha \geq .715$  in all seven categories of time, resources, community engagement, leadership, decision making, professional development and student learning) and valid (both content and construct) measure of the presence of teaching conditions in participating schools (Hirsch & Sioberg, 2009). Statistical analyses conducted by the researchers to validate their TELL survey included confirmatory and non-confirmatory factor analyses and Cronbach's alphas to assess the reliability and validity of the survey. Educators were identified specifically as K-12 teachers and specialists (librarians and media specialists, special education teachers, school psychologists, social workers, speech therapists, etc.), mentor teachers, long-term (permanent) substitute teachers, BOCES teachers and charter schoolteachers (licensed or not) and school-level administrators (principals, assistant principals). All potential participants of TELL Colorado received a hard copy letter explaining the purpose of the web-based survey, a confidential access code to take the

survey and other pertinent information relating to anonymity, time frame of survey and future use of data. In order to be included in the final results of the TELL Colorado survey, schools need to have at least a fifty percent response rate from its faculty. Approximately 23,000 Colorado educators (36 percent) from across the state responded to the survey within the four-week time span. This included responses from 20,506 teachers, 546 principals, 331 assistant principals and 1,751 other education professionals. Data from 624 schools and 50 school districts within Colorado were compiled and analyzed. Specific data from two questions relating to job satisfaction and immediate intent to stay from the TELL Colorado survey was used for this current study.

### **New Data for Current Study**

#### **District-Wide Health and Fitness Program**

Out of the 176 school districts in Colorado, 50 met or exceeded the 50 percent response rate criteria on the TELL Colorado survey. This 50 percent response rate was the TELL Colorado cutoff; it was necessary in order for the responses to be considered valid and publicly reportable. In order to determine if districts sponsor employee health and fitness programs, all 50 districts were contacted. Each district Director of Benefits or Wellness Coordinator received a brief electronic questionnaire relating to the existence of such a program and inquiry into specific details.

#### **School-Wide Health and Fitness Program**

Out of the 1,759 total schools in Colorado, 624 schools met or exceeded the 50 percent response rate criteria on the TELL Colorado survey. In order to determine if individual schools sponsor their own employee health and fitness program, all 624

schools were contacted; the principal of each participating school received a brief electronic questionnaire relating to the existence of such a program and inquiry into specific details.

### **Methodology**

The potential participating districts and school sites were invited via electronic mail to participate in this study. The electronic recruitment letter contained details regarding the purpose of the study, confidentiality and participant rights regarding voluntary participation, ability to withdraw from study, potential harmful effects and researcher contact information. Those who wanted to participate were directed to click on an active web link, which instantly connected them to a brief electronic Survey Monkey questionnaire. This questionnaire contained six questions specific to the existence of a district-sponsored and/or a school-sponsored employee health and fitness program.

The questionnaire asked whether or not a district-sponsored and/or school-sponsored employee health and fitness program exists, reasoning about why or why not, details about activity choices within the program and available incentives for participation. Completion of the questionnaire was voluntary, and any personal, district, or school identifying information collected remained confidential. Potential participants at both the district and school levels were given three weeks to complete the corresponding questionnaire. If, after the three week data collection timeframe, the response rates for either the district and/or school levels were below the 30% target response rate, the corresponding questionnaire would be re-administered for an additional three weeks in order to elicit as many responses as possible and strengthen the overall

results of the study. Participating districts and school sites have an option to receive a brief report of the results of the study, upon request, to reinforce the value of sponsoring an employee health and fitness program or to support the creation of such a program within a district and/or individual school.

## **Data and Analysis**

### **Quantitative – Extant Data**

This study analyzed extant data from the Teaching, Empowering, Leading and Learning (TELL) Initiative of Colorado. The goal of this initiative was to survey all licensed, school-based educators about their perceptions of the current state of the teaching and learning conditions in schools across Colorado. Seven major categories were included in the TELL Colorado survey: time, resources, community engagement, empowerment, school leadership, professional development and student learning. Additional questions pertaining to demographic, overall perceptions, new teacher support and mentor were also present. Valuable information from the survey was compiled and analyzed in hopes to be utilized at building, district and state levels to improve teaching and learning conditions.

This study used the “overall” section of the TELL Colorado survey. This section contains six questions assessing educators’ overall professional plans (immediate and long-term), perceptions of teaching conditions and work environment, decision making influential factors and overall job satisfaction. The items of focus for this study were:

- Q9.1 Which best describes your immediate professional plans?
  - Continue teaching at my current school
  - Continue teaching in the district but leave this school
  - Continue teaching in this state but leave this district
  - Continue teaching in another state
  - Continue working in education to pursue an administrative position
  - Continue working in education to pursue a non-administrative position
  - Leave education entirely
  
- Q9.9 Overall, my school is a good place to work and learn.
  - Strongly disagree
  - Somewhat disagree
  - Neither disagree nor agree
  - Somewhat agree
  - Strongly agree

### **Quantitative – New Data**

The questionnaires used in this current study each contained six questions, were created by the researcher and assessed the existence of a district-sponsored and/or school-sponsored employee health and fitness programs and corresponding details. Due to the low response rate of school administrators at the school level, the corresponding questionnaire was re-administered for an additional three weeks in an effort to obtain a more acceptable response rate and strengthen the overall results of the study. Results from this study's questionnaires were analyzed statistically with the extant data results from the two TELL Colorado survey questions to test hypotheses.



## **CHAPTER IV**

### **Results**

The results of the data analysis used for this investigation specific to each research question are present in this chapter. The purpose of this research study was to expand the existing knowledge about the value of employee health and fitness programs specific to job satisfaction and intent to stay in public school settings.

A total of over 24,000 teachers in Colorado participated in the TELL Colorado survey between April and May 2009. Extant data from 624 schools and 50 school districts that met the pre-established 50% educator response rate were used for this study.

A total of 624 questionnaires for this current study were distributed electronically to the school sites. Of this number 90 school administrators completed their questionnaires for a response rate of 14.4% (N = 90) (Table 2). A total of 50 questionnaires were distributed electronically to school districts. Of this number, 42 district level administrators completed their questionnaires for a response rate of 84% (N = 42) (Table 2). Participating school districts and school sites varied in setting size, ranging from urban (over 25,000), suburban (between 1,201 and 25,000) and rural (1,200 and less) (Table 1).

Table 1  
*District and School Type*

	Urban	Suburban	Rural
School District	9	21	12
School Site	32	44	14

Table 2  
*New Data- Response Rate for Districts and Schools*

	Distributed		Returned	
	Number	Percent	Number	Percent
School Districts	50	100	42	84
School Sited	624	100	90	14

The low response rate for school sites may be due to the reluctance of school administrators to respond to the questionnaire. Several school districts have an external research policy; such policies require district approval for any outside research projects their school administrators participate in. External research applications were filed with districts but many requests were either denied or the approval process exceeded the timeframe of the research study. In addition, the survey was distributed at a busy time of the school year; administrators were preparing for parent/teacher conferences as well as progress reports. These factors may have contributed to the low response rate from school administrators.

District level administrators were asked to indicate whether their district sponsored an employee health and fitness program. Of the 42 school administrators that completed the district level questionnaire, 40% indicated that their district did sponsor an employee health and fitness program to some degree (n = 17) and 60% indicated that their district did not sponsor an employee health and fitness program (n = 25). The response rate for each of the school districts is presented in Table 3.

Table 3  
*Extant and New Demographic Information*

District Code	Sponsored Program?	# of Schools	# of TELL CO Responses
1	Y	9	247
2	N	2	45
3	Y	2	38
4	N	2	42
5	Y	1	13
6	Y	2	25
7	Y	3	41
8	N	3	49
9	Y	2	58
10	N	3	88
11	Y	4	80
12	Y	2	78
13	N	7	254
14	N	1	14
15	N	1	32
16	Y	5	83
17	Y	5	135
18	N	1	36
19	N	2	108
20	N	3	54
21	N	1	19
22	N	1	10
23	N	2	43
24	N	1	14
25	Y	3	9
26	N	1	24
27	Y	1	24
28	Y	1	14
29	N	1	21
30	Y	1	13
31	Y	1	24
32	N	3	60
33	N	1	27
34	N	1	23
35	N	1	10
36	Y	2	34
37	N	3	53
38	N	1	12
39	N	1	16
40	N	1	7
41	N	1	18
42	Y	1	16
N = 42	No = 25 Yes = 17	N = 90	n = 2,011

Those school districts that indicated sponsoring an employee health and fitness program were asked to provide information justifying the support of such a program. District administrators were able to mark multiple reasons if applicable. Out of the eight possible reasons provided, all school districts indicated that employee health benefits were the most important reason for sponsoring an employee health and fitness program. Employee health benefits was followed by increase employee productivity and decrease employee absenteeism (82% and 82%, respectively), increase employee job satisfaction and decrease in health benefits costs (71% and 71%, respectively), increase employee psychological benefits (59%), increase employee commitment to district (24%) and decrease employee turnover (18%). Results are presented in Table 4.

Table 4  
*District Reasons to Sponsor*

Possible Responses	District Information	
	Number	Percent
Employee Health Benefits	17	100
Increase Employee Productivity	14	82
Decrease Employee Absenteeism	14	82
Increase Employee Job Satisfaction	12	71
Decrease Health Benefits Cost	12	71
Employee Psychological Benefits	10	59
Increase Employee Commitment to District	4	24
Decrease Employee Turnover	3	18

Those school districts that indicated not sponsoring an employee health and fitness program were asked to provide information stating reason for not supporting such a program. District administrators were able to mark multiple reasons if applicable. Out of the seven possible reasons provided, the majority of school districts indicated that “financial/resource limitations” was the main reason for not sponsoring an employee

health and fitness program (88%). Financial/resource limitations was followed by ‘too expensive’ and ‘chosen to support other district-wide programs’ (28% and 28%, respectively), ‘interested but has not yet established such a program’ (20%), and ‘lack of research supporting the value of such a program’, ‘not enough interest among employees’ and ‘school sites within district sponsor their own employee health and fitness program’ (12%, 12% and 12%, respectively). It is important to note that many of district administrators did indicate more than one reason for their district not sponsoring an employee health and fitness program. These results raise interesting questions regarding district and school wealth as well as overall health consciousness in both settings. These issues will be addressed further in chapter five. Results are presented in Table 5.

Table 5  
*District Reasons Not to Sponsor*

<u>Possible Responses</u>	<u>District Information</u>	
	Number	Percent
Financial/Resource Limitations	22	88
Too Expensive	7	28
Chosen to Support Other Programs	7	28
Interested, but No Established Program Yet	5	20
Lack of Research	3	12
Not Enough Employee Interest	3	12

Those school districts that indicated sponsoring an employee health and fitness program were asked to provide information about what specific activities the program included. District administrators were able to mark multiple reasons if applicable. Out of the nine possible activity choices provided, the majority of school districts indicated ‘wellness workshops’ was the highest frequency activity in their employee health and fitness program. Districts also included offering such activities as organized physical

fitness activities (76%), nutrition workshops (71%), web-based learning/video resources and optional physical examinations/screenings (53% and 53%, respectively), organized recreational activities (41%), stress management services (35%) and weight management services (29%). None of the school districts indicated having required physical examinations/screenings as part of their district sponsored employee health and fitness program. Results are presented in Table 6.

Table 6  
*Activities Included in Sponsored Programs*

Possible Responses	District Information	
	Number	Percent
Wellness Workshops	14	82
Organized Fitness Activities	13	76
Nutrition Education	12	71
Web-based Learnings & Resources	9	53
Options Physical Exams and/or Screenings	9	53
Recreational Activities	7	41
Stress Management Services	6	35
Weight Management Services	5	29
Required Physical Exams and/or Screenings	0	0
None of the Above	0	0

### **Main Effects on Job Satisfaction: Hypotheses One through Five**

Hypothesis 1 stated that there would be a relationship between the existence of a school site sponsored employee health and fitness program and employee job satisfaction. This hypothesis required a correlational analysis of the relationship between school-site health and fitness programs and job satisfaction. The small positive bivariate correlation was significant, thus supporting the hypothesis ( $r_{2091}=.045$ ;  $p=.040$ ) (Table 7).

Participants who reported being at a school that sponsored an employee health and fitness

program on average scored higher on the measure of job satisfaction in the TELL Colorado survey, indicating they are more satisfied with their job.

Table 7  
*Correlations of Schools and District with Sponsored Health and Fitness Programs with Overall Job Satisfaction*

Measure	N	Schools w/ Programs	Districts w/ Programs
Overall Job Satisfaction	2091	.45*	.106**

\* significant at the .05 level (2-tailed)  
 \*\* significant at the .01 level (2-tailed)

Hypothesis 2 stated that there would be a relationship between the existence of a district sponsored employee health and fitness program and employee job satisfaction. Hypothesis 2 required a correlational analysis of the relationship between district health and fitness program and job satisfaction. This hypothesis was supported with a small significant bivariate correlation ( $r_{2091}=.106$ ;  $p<.001$ ) (Table 7). Participants who reported working in a district that sponsored an employee health and fitness program reported higher average job satisfaction on the TELL Colorado survey than those participants who did not have a district sponsored health and fitness program.

Hypothesis 3 stated that there would be a stronger relationship between a district-sponsored employee health and fitness program and employee job satisfaction than a school-sponsored employee health and fitness program and employee job satisfaction. Hypothesis 3 required comparative analysis between district-sponsored health and fitness programs and school-site sponsored health and fitness programs relative to employee job satisfaction. This hypothesis was supported by Fisher's r-to-z Transformation ( $z=1.99$ ;  $p=.046$ ). Fisher r-to-z transformation assesses the significance of the difference between two correlation coefficients,  $r_a$  and  $r_b$ , found in two independent samples. The

relationship between district sponsored employee health and fitness programs and job satisfaction was statistically significant ( $r=.106$ ). The relationship between school sponsored employee health and fitness programs and job satisfaction was also statistically significant ( $r=.045$ ). The Fisher r-to-z transformation indicated that the difference between the district and school correlations although small, was statistically significant ( $p=.046$ ) (Table 8).

Table 8  
*Difference between Correlations of Sponsored Health and Fitness Programs and Job Satisfaction*

Variable	School Sponsored Fitness Program		District Sponsored Fitness Program	
	n	r	n	r
Overall Job Satisfaction	2102	.045	2091	.106
$z = 1.99$				

$p = 0.02333$  (1-tailed);  $p = 0.0466$  (2-tailed).

Hypothesis 4 stated that employee job satisfaction would be higher within school districts that sponsored employee health and fitness programs when compared to school districts without sponsored employee health and fitness programs. Hypothesis 4 required comparative analyses between job satisfaction and the existence or non-existence of a school district sponsored employee health and fitness program. This hypothesis was supported with the comparison of means for job satisfaction of employees from both districts with and without sponsored health and fitness programs (Table 9). Participants employed at districts with sponsored employee health and fitness programs had a significantly higher mean job satisfaction than participants employed at districts without sponsored employee health and fitness programs (mean = 4.03; 3.75;  $p<.001$ ).



Table 9  
*Job Satisfaction Differences Between individuals Who Work at District that Do and Do Not Sponsor Health and Fitness Programs*

Measure	No District Sponsored Fitness Program			District Sponsored Fitness Program			df	t	p
	M	SD	N	M	SD	N			
Overall Job Satisfaction	3.75	1.357	1079	4.03	1.312	1012	2087.068	-4.857	<.001

Hypothesis 5 stated that employee job satisfaction would be higher within schools that sponsored employee health and fitness programs when compared to schools without sponsored employee health and fitness programs. Hypothesis 5 required comparative analyses between job satisfaction and the existence or non-existence of a school sponsored employee health and fitness program. This hypothesis was supported with the comparison of means for job satisfaction of employees from both schools with and without sponsored health and fitness programs (Table 10). Participants employed at schools with sponsored employee health and fitness programs had a significantly higher mean job satisfaction than participants employed at schools without sponsored employee health and fitness programs (mean = 3.97; 3.84; p=.04).

Table 10  
*Job Satisfaction Differences Between Individuals Who Work at Schools that Do and Do Not Sponsor Health and Fitness Programs*

Measure	No School Sponsored Fitness Program			School Sponsored Fitness Program			df	t	p
	M	SD	N	M	SD	N			
Overall Job Satisfaction	3.84	1.347	1391	3.97	1.330	700	1417.420	-2.059	.040

Hypothesis 6 stated that there would be a relationship between the existence of a school site sponsored employee health and fitness programs and employee intent to stay

in education. This hypothesis required a correlational analysis of the relationship between school-site health and fitness programs and intent to stay. This hypothesis was not supported because the results failed to reach statistical significance ( $r_{2102}=.012$ ;  $p=.581$ ) (Table 11). Participants at schools with sponsored employee health and fitness program scored themselves the same on the TELL Colorado survey as participants at schools that did not sponsor employee health and fitness programs regarding intent to stay.

Table 11  
*Correlations of Schools and District with Sponsored Health and Fitness Programs with Immediate Intent to Stay*

Measure	N	Schools w/ Programs	Districts w/ Programs
Immediate Intent to Stay	2102	.12	.016

Hypothesis 7 stated that there would be a relationship between the existence of a district sponsored employee health and fitness program and employee intent to stay.

Hypothesis 7 required a correlational analysis of the relationship between district health and fitness program and intent to stay. This hypothesis was also not supported by the bivariate correlation ( $r_{2102}=.016$ ;  $p=.462$ ) (Table 11). Participants who reported being at a district that sponsored an employee health and fitness program reported similar intent to stay on the TELL Colorado survey.

Hypothesis 8 stated that there would be a stronger relationship between a district-sponsored employee health and fitness program and employee intent to stay than a school-sponsored employee health and fitness program and employee intent to stay.

Hypothesis 8 required comparative analysis between district-sponsored health and fitness

programs and school-site sponsored health and fitness programs relative to employee intent to stay. This hypothesis was not supported by Fisher's r-to-z Transformation ( $z=.13$ ;  $p=.896$ ). The relationship between district sponsored employee health and fitness programs and intent to stay failed to reach statistical significance at the .05 level ( $r=.462$ ). The relationship between school sponsored employee health and fitness programs and intent to stay also failed to reach statistical significance at the .05 level ( $r=.581$ ). The Fisher r-to-z transformation indicated that the difference between the district and school correlations was not statistically significant (Table 12).

Table 12  
*Difference between Correlations of Sponsored Health and Fitness Programs and Immediate Intent to Stay*

Variable	School Sponsored Fitness Program		District Sponsored Fitness Program	
	n	r	n	r
Immediate Intent To Stay in Education	2102	.012	2102	.016
$z = 0.13$				

$p = 0.4483$  (1-tailed);  $p = 0.8966$  (2-tailed).

Hypothesis 9 stated that employee intent to stay would be higher within school districts that sponsored employee health and fitness programs. Hypothesis 9 required comparative analyses between intent to stay and the existence or non-existence of a school district sponsored employee health and fitness program. This hypothesis was not supported by chi-square analysis. Two categorical variables were being examined, specifically a teacher's intent to stay in the education field and whether or not their school district offered an employee health and fitness program. If they were related then knowing whether or not a school district offered an employee health and fitness program

would help predict teachers' intent to stay in the education field. The resulting chi-square was  $X^2_{(1)} = .010, p = .922$ ; this result did not support the hypothesis (Table 13). There was no relationship between a school district offering an employee health and fitness program and a teacher's intent to stay in education.

Table 13  
*Significance of Difference between Schools and Districts With and Without Health and Fitness Programs and Immediate Intent to Stay in Education*

Measure	<u>Stay in Education</u>		<u>Leave Education</u>		$X^2_{(1)}$	<i>p</i>
	n	%	n	%		
School Sponsored Fitness Program	591	97	16	3	0.113	0.737
No School Sponsored Fitness Program	1191	98	29	2		
District Sponsored Fitness Program	858	98	22	2	0.01	0.922
No District Sponsored Fitness Program	924	98	23	2		

Hypothesis 10 stated that employee intent to stay would be higher within schools that sponsored employee health and fitness programs. Hypothesis 10 required comparative analyses between intent to stay and the existence or non-existence of a school district sponsored employee health and fitness program. This hypothesis was not supported by chi-square analysis. Two categorical variables were being examined, specifically a teacher's intent to stay in the education field and whether or not their school offered an employee health and fitness program. If they were related then knowing whether or not a school offered an employee health and fitness program would help predict teachers' intent to stay in the education field. Our resulting chi-square was

$X^2_{(1)} = .113, p = .737$ ; this result did not support the hypothesis (Table 13). There was no relationship between a school sponsored employee health and fitness program and a teacher's intent to stay.

## **CHAPTER V**

### **Discussion**

The purpose of the present research study was to expand the existing knowledge about the value of employee health and fitness programs specific to job satisfaction and intent to stay in public school settings. Marshall (2004) recommended future research is necessary for a greater understanding of how employee health and fitness programs relate to organizational variables such as employee job satisfaction, turnover and absenteeism. Following his recommendation, the present research investigation contributes to the fields of education and health/wellness. The study seems to add evidence to previous research claims that employee health and fitness programs can have a valuable impact on job satisfaction. Interestingly, no correlation was found between existence of a health and fitness program and immediate intent to stay in education, however.

### **Findings**

The present results indicated a significant positive correlation between a sponsored employee health and fitness program and job satisfaction. The results of this study reinforce the findings of Allegrante and Michela (1990) who examined a district-sponsored employee health and fitness program and its impact on job satisfaction. This current study did not look at actual employee participation, but did demonstrate that the existence of a district sponsored and school site sponsored employee health and fitness can increase job satisfaction.

These results should be used with caution however. Other potential co-variables not investigated in depth could have contributed to the results of this study. Employee health and fitness programs, whether sponsored at the district level or site based, could be a component of a larger indicator of job satisfaction and immediate intent to stay, specifically school wealth. When examining the reasons for not sponsoring employee health and fitness programs, the majority of the school districts cited financial and resource limitations as primary reasons, followed by such programs being too expensive and choosing to support other programs. Upon further investigation into additional extant data from the TELL Colorado survey pertaining to facilities and resources, it was discovered that those districts sponsoring employee health and fitness programs not only had higher overall job satisfaction ratings, but also showed higher average ratings for accessibility to instructional, technological and other available resources. Such items could be interpreted as elements of overall school wealth. An examination of possible correlations between job satisfaction and six specific questions addressing school wealth from the TELL Colorado survey indicated a weak positive relationship. Correlations ranged from  $r_{15024} = .164; p < .001$  to  $r_{14951} = .210; p < .001$  with a mean of  $r_{14639} = .250; p < .001$ . These correlations showed that the more satisfied employees worked in school with higher wealth. According to the Alt and Henke of the National Center for Educational Statistics (2007), other variables that can affect job satisfaction among educators include learning environment, pay, parent support, students' behavior and discipline, and students' motivation to learn. The variables found to correlate in this

study – existence of health and fitness programs and job satisfaction – may both be covariates with school wealth.

Intent to stay in the field of education however was not significantly correlated to the existence of an employee health and fitness program at neither the district level nor school site level. Therefore, the existence of an employee health and fitness program has little, if any, effect on whether or not employees intent to stay or leave the field of education in the immediate future. This result is logical because there are many other factors that play into whether educators stay or leave the profession. As with job satisfaction, such factors as educators’ perceptions of the work environment, quality of leadership, parental support, collegial support, student behavior and discipline, and decision-making involvement can contribute to immediate intent to stay within the educational field (Hirsch and Sioberg, 2009). In addition, other non work-related variables including retirement, personal health, and family obligations could also play a role in intent to stay. Based on the current study results alone, an employee health and fitness program may not be of value to school district and school site employees in regards to intent to stay in education.

Again, these results should be used with caution. Researchers have established a strong relationship between job satisfaction and intent to stay (Irvine& Evans, 1995). Since job satisfaction can be difficult to measure due to the ceiling effects in an setting (Althiler & Motta, 1994; Gronningsaeter, Hytten, Skauli, Christensen & Ursin, 1992), a direct correlation between job satisfaction and the value of employee health and fitness programs within educational settings can be examined via intent to stay. However, the



results do not support this hypothesis. In order to examine the possible relationship between job satisfaction and intent to stay and discuss this finding, a correlational analysis was performed for these variables. Data indicated a small, significant correlation did exist ( $r_{13254}=.136$ ;  $p<.001$ ). Participants who reported higher job satisfaction were more likely to also report higher intent to stay. This additional result does not explain the findings specific to intent to stay in this study. Again, the results of this study should be used with caution and serious consideration should be given to the limitations and irregularities.

Due to the correlation between job satisfaction and intent to stay, a secondary examination of possible correlations between intent to stay and six specific questions addressing school wealth from the TELL Colorado survey took place. This examination indicated a weak positive relationship. Correlations ranged from  $r_{13240} = .059$ ;  $p<.001$  to  $r_{13168} = .094$ ;  $p<.001$  with a mean of  $r_{12906} = .105$ ;  $p<.001$ . These correlations showed that the employees had higher intent to stay when in a school with higher wealth. However, these correlations are minimal and do not add much strength to the relationship between employee intent to stay and overall school wealth. The mean correlation between job satisfaction and overall school wealth was more than double the mean correlation of intent to stay and overall school wealth ( $M=.250$  and  $M=.105$ , respectively). This would indicate that overall school wealth plays a more vital role in employee job satisfaction than intent to stay.

## **Application**

Public school district and school site may want to consider sponsoring employee health and fitness programs for job satisfaction purposes. As research continues to grow about the value of employee health and fitness programs, taking a hard look at such programs and possible implementation may prove to be a great investment based on its' return. In addition to job satisfaction, there may be other work related variables that employee health and fitness programs can positively impact such as employee absenteeism and productivity.

This study attempted to fill the gaps within the literature. According to Marshall (2004), future research will lead to a greater understanding of how employee health and fitness programs relate to organizational variables such as employee job satisfaction, turnover and absenteeism. Although this study showed only a small positive correlation between employee health and fitness programs and job satisfaction, it has contributed to the overall body of knowledge for public school systems to access, investigate and use to make critical financial and program decisions in a time of cutbacks and consolidations.

## **Limitations**

With any research study, flaws of varying magnitude are present. Selected responses from two of the twenty-six questions and sub-questions TELL Colorado survey were used as part of the data for this study. One flaw may be that the job satisfaction question from the extant data source, the TELL Colorado survey, was worded in such a way to include two different variables. The question "Overall, my school is a good place to work and learn" is very broad and addresses the working environment and the learning

environment. The wording of the question may have affected each participant's interpretation and subsequent answer. Also, the TELL Colorado survey was administered to only teachers and administrators in the State of Colorado. Therefore, the results obtained by the survey may not be generalizable to the larger population. Another weakness may be that thirty-six percent of educators in the state participated in the survey; a higher response rate would have added strength to the survey's overall findings. It is also possible that the participants of the TELL Colorado survey were responding in a socially acceptable manner due to the sensitive nature of such information. Even though the survey was anonymous, school leaders did receive overall results if each school had at least a 50% response rating. Therefore, participants may have been more apt to choose a higher job satisfaction response.

A second flaw that must be accounted for may be the questionnaires used to collect new data from public school districts and school sites regarding the existence of employee health and fitness programs. These questionnaires were created by the researcher and may not have been entirely comprehensive specific to employee health and fitness programs. Also, due to turnover, many of the schools and/or districts had new leadership; the researcher received numerous electronic responses stating that they were unsure of whether or not an employee health and fitness program truly existed. The researcher also experienced difficulty receiving external research approval from school districts. Some school districts denied this study because it was not directly linked to their districts' goals. In addition, the application review process to receive external research approval for many districts was extraordinarily long. For instance, one school

district took more than four months to review the application; the study had concluded two months prior to their final response. Another limitation regarding the new data collection may be the response rate. Six hundred twenty-four school sites had a 50% response rate on the TELL survey (Hirsch, 2009). Sixty-four schools participated in the first distribution of the new data questionnaire resulting in a 10.3% response rate. Due to this low response rate, the questionnaire was distributed a second time in hopes to reach a more acceptable response rate. A total of ninety school sites responded to the new data questionnaire about employee health and fitness programs at the end of the second distribution timeframe (14% response rate). An effort was made by the researcher to improve the overall response rate at the school site level; efforts did result in additional participants but did not reach a desirable percentage.

A third flaw that requires explanation is the lack of operational definitions for what an employee health and fitness program encompasses. Past research has included a wide range of elements that could make up an overall health and fitness program. Unfortunately, the district and school site questionnaires did not provide specific definitions to the possible responses provided to the participants. One district may have considered organized Yoga classes as recreational while another district may have classified such a program as physical fitness. It is likely that participants used their own assumptions and perspectives when attempting to define and choose which responses best fit their district or school program. Due to the lack of clear operational definitions to each of the choices on this question, the resulting data should be viewed with caution.

The fourth, and most noteworthy, limitation of this study involves the utilization of both extant and new data at varying levels. Individual data from two questions from the TELL Colorado survey were used in the correlational analysis of employee health and fitness programs and job satisfaction and immediate intent to stay. However, the new data from the researcher created questionnaires were only focused on district and school site level information regarding employee health and fitness programs. The questionnaires did not make one-to-one connections at the individual level as did the TELL Colorado results. Therefore, there is no direct link between the participants of the TELL Colorado survey and the participants of the current questionnaires used for this study. This indirect link potentially affected the meaningfulness of the data and weakened the results of this study. Because of this, the researcher questions the true correlation between employee health and fitness programs and immediate intent to stay; if a direct link was made at the individual level, different results may have been found. Future research should directly link job satisfaction and immediate intent to stay with the existence of employee health and fitness programs at the individual level in order to collect stronger, more reliable data.

The existence of an employee health and fitness program is only one of many possible variables that may affect job satisfaction. This study was not comprehensive and did not take into account other variables that could possibly affect job satisfaction and intent to stay.

## **Future Research**

Future studies can expand on this research in numerous ways. The present investigation did not make an attempt to discern whether or not employees actually took advantage of employee health and fitness programs. It only focused on if such a program existed at either the district or school site level. Therefore, it may be helpful to further investigate employees in districts or school sites that sponsor an employee health and fitness program and their level of job satisfaction and intent to stay related to participation or non-participation. Such a study would have to take into account their beginning job satisfaction and intent to stay as well as their level of physical fitness, exercise experience, exercise preference and possible health limitations that can adversely affect participation.

Future research would also benefit the field by adding different types of jobs within education. Distinguishing between different groups of educators may reveal support for or against the value of sponsoring an employee health and fitness program at the district and school site levels. It would be interesting to determine whether teachers experience a higher job satisfaction and intent to stay in education than administrators or support staff when a district or school site sponsored employee health and fitness program exists.

Additional research would also benefit the field by determining what type of health and fitness programs have the most affect on job satisfaction and intent to stay in education. On the questionnaires used for this study, several types of health and fitness programs were provided for districts and school sites to describe the make-up of their

current program. It would be interesting to find out what health and fitness programs work better than others to increase employee job satisfaction and intent to stay in education. The specific types of programs may determine whether or not school district and/or school sites invest in such a program for their employees.

Lastly, the understanding of sponsored employee health and fitness programs may be improved by determining if such programs are cost effective and sustainable for lasting effect on employee job satisfaction and intent to stay in education. In a time of budget cuts, school districts and school sites are in a balancing act between what are considered “wants” in education and what are considered necessities. If research can show that employee health and fitness programs can positively affect employee job satisfaction and intent to stay in education AND can be implemented with low cost, more districts and school sites would at least investigate the feasibility of sponsoring such a program. This approach could help control for overall school wealth variables that were evident in this current study.

Overall, employees in districts and school sites that sponsor employee health and fitness programs seem to have higher job satisfaction than those who work in district and/or school sites that do not sponsor such programs. There is no correlation between a sponsored employee health and fitness program and immediate intent to stay in education. Employees in school districts that sponsor health and fitness programs seem to have higher job satisfaction than employees of school sites that sponsor health and fitness programs. School districts and school sites that sponsor employee health and fitness programs have found a valuable way to impact job satisfaction among their

employees. Promoting health and fitness in public school districts can be one way to positively impact the workforce and reap the return benefits.



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## Appendix A

### TELL COLORADO SURVEY - “OVERALL” SECTION QUESTIONS

Q9.1 Which best describes your immediate professional plans?

- Continue teaching at my current school
- Continue teaching in the district but leave this school
- Continue teaching in this state but leave this district
- Continue teaching in another state
- Continue working in education to pursue an administrative position
- Continue working in education to pursue a non-administrative position
- Leave education entirely

Q9.9 Overall, my school is a good place to work and learn.

- Strongly disagree
- Somewhat disagree
- Neither disagree nor agree
- Somewhat agree
- Strongly agree



## Appendix B

### DISTRICT-SPONSORED EMPLOYEE HEALTH AND FITNESS PROGRAM QUESTIONNAIRE

1. What is the name of your school district?

2. Does your school district fund or sponsor an employee health and fitness promotion program?

- YES
- NO

3. If you answered "YES" to question #2, why has your district chosen to fund/sponsor such a program?  
(Select all that apply)

- Employee health benefits
- Employee psychological benefits
- Increase employee job satisfaction
- Decrease employee turnover
- Increase employee productivity
- Decrease in health benefits costs
- Decrease employee absenteeism
- Increase employee commitment to district

4. If you answered "NO" to question #2, why has your district chosen not to fund/sponsor such a program?  
(Select all that apply)

- Financial/resource limitations
- Too expensive
- Lack of research supporting value of such a program
- Chosen to support other district-wide programs
- Not enough interest among employees
- Interested, but have not established a program yet
- School sites in district sponsor their own employee health/fitness promotion program

5. The district-sponsored employee health and fitness promotion program includes (select all that apply):

- Required physical examinations and screenings
- Optional physical examinations and screenings
- Organized physical fitness activities
- Recreational activities
- Wellness workshops
- Nutrition education
- Web-based learnings/video resources
- Stress management services
- Weight management services
- None of the above

6. Does your school district funded or sponsored employee health and fitness promotion program include incentives for participation?

- YES (1)
- NO (2)
- Not Applicable (3)

## Appendix C

### SCHOOL SITE-SPONSORED EMPLOYEE HEALTH AND FITNESS PROGRAM QUESTIONNAIRE

1. What is the name of your school?

2. Does your school building fund or sponsor an employee health and fitness promotion program?

- YES
- NO

3. If you answered "YES" to question #2, why has your school building chosen to fund/sponsor such a program? (Select all that apply)

- Employee health benefits
- Employee psychological benefits
- Increase employee job satisfaction
- Decrease employee turnover
- Increase employee productivity
- Decrease in health benefits costs
- Decrease employee absenteeism
- Increase employee commitment to school

4. If you answered "NO" to question #2, why has your school building chosen not to fund/sponsor such a program? (Select all that apply)

- Financial/resource limitations
- Too expensive
- Lack of research supporting value of such a program
- Chosen to support other school-wide programs
- Not enough interest among employees
- Interested, but have not established a program yet
- School district sponsors an employee health/fitness promotion program

5. The school-sponsored employee health and fitness promotion program includes (select all that apply):

- Required physical examinations and screenings
- Optional physical examinations and screenings
- Organized physical fitness activities
- Recreational activities
- Wellness workshops
- Nutrition education
- Web-based learnings/video resources
- Stress management services
- Weight management services
- None of the above

6. Does your school building funded or sponsored employee health and fitness promotion program include incentives for participation?

- YES (1)
- NO (2)
- Not Applicable (3)