

EXPLORING WELLNESS PROGRAMMING AWARENESS, USAGE, AND PERCEIVED
LEADERSHIP SUPPORT AMONG COMMUNITY COLLEGE EMPLOYEES

A DISSERTATION

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ABSTRACT

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EXPLORING WELLNESS PROGRAMMING AWARENESS, USAGE, AND PERCEIVED LEADERSHIP SUPPORT AMONG COMMUNITY COLLEGE EMPLOYEES

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Unhealthy behaviors that many U.S. workers have adopted, such as physical inactivity, poor diet, and stressful lifestyles, have increased health risks and diminished quality of life. With over 140 million employed people spending close to a quarter of their waking lives at work, the workplace is an opportune setting to support employees and provide avenues for healthier lifestyle choices. However, higher-education, specifically at the community college (CC) level, has seen slow growth of health and wellness programming (HWP). The purpose of this study was two-fold: (1) examine community college employees' awareness, usage, and perceptions of leadership support for HWP, and (2) to explore potential differences across leadership levels, employment roles, and campuses within a college system. Participants in the study ($n = 621$) completed an employee wellness survey. Results indicated that there was a moderate positive correlation between CC employee awareness and usage ($r = 0.62, p < .01$), and a weak positive correlation between CC employee awareness and perceptions of leadership support ($r = 0.18, p < .01$). Results from an ANOVA indicated a statistically significant difference in employee perceptions of leadership support for HWP across three levels of leadership $F(2, 1860) = 57.84, p < .001, \eta^2 = 0.06$. Employees felt most supported by their direct supervisor ($M = 3.94$), followed by their campus administration ($M = 3.59$), followed by their district administration ($M = 3.31$). Results also indicated that mean perceptions of leadership support differed significantly across campuses ($F(5, 615) = 2.86, p = .015, \eta^2 = .023$).

Lastly, results indicated that awareness ($F(2, 616) = 47.6, p < .001, \eta^2 = .134$) and usage of HWP ($F(2, 578) = 46.03, p < .001, \eta^2 = .14$) differed significantly between employment roles.

Specifically, faculty awareness ($M = 1.96, SD = 0.58$) differed significantly less from staff ($M = 2.33, SD = 0.47$) and administration awareness ($M = 2.45, SD = 0.35$), and also that faculty usage of HWP ($M = 0.19, SD = 0.21$) differed significantly less from staff ($M = 0.35, SD = 0.24$) and administration usage of HWP ($M = 0.40, SD = 0.22$).

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CHAPTER I

INTRODUCTION

Poor health-related behaviors that many U.S. workers have adopted, such as low physical activity, poor diet, and stressful lifestyles, increase health risks and diminish quality of life. An American Heart Association ([AHA], 2018) study's authors found that nearly all employees at large companies nationwide (approximately 400,000 people) face increased risk of heart disease and stroke from obesity, high blood pressure, poor diet, and other multiple risk factors. Per a 2017 study, these risk factors such as hypertension, high cholesterol, high blood glucose, unhealthy weight, tobacco use, physical inactivity, and poor diet have increased employer medical spending by more than 200% per person per year (AHA, 2018). Overall, heart disease and stroke cost the United States about \$316 billion a year in health expenses and lost productivity attributed to absenteeism and presenteeism. In addition to these physical health problems, work-related stress costs American businesses over \$300 billion a year (World Health Organization [WHO], 2018a). These financial ramifications of illness have led company executives to implement employee health and wellness programs (HWPs) to help mitigate health care costs and lost productivity. Simultaneously and ideally, HWPs can empower employees through education and the practice of preventive health measures to enhance health, well-being, and quality of life.

According to WHO (2018b), HWPs can positively impact corporations. Some of the possible benefits of a company-sponsored HWP include increased productivity, decreased absenteeism, reduced health care/insurance costs, reduced staff turnover, reduced risk of fines and litigation, and improved employee health and morale (WHO, 2018b).

On the other hand, some researchers have reported mixed findings regarding the positive use of HWPs, specifically regarding the financial return on investment (Jones et al., 2019; Song & Baicker, 2019). Specifically, and most rigorously, Song and Baicker (2019) examined 160 worksites through a 6-month timeframe in a clustered randomized trial. The treatment sites (20 sites; 4,037 participants) received eight different modules of various wellness topics including nutrition, physical activity, and stress reduction. The control sites (120 total; 28,937 participants) received no wellness programming. Employment data, administrative claims, surveys, and biometric screenings were used as the study measures. The researchers analyzed four outcome variables: self-reported behaviors (29 measures), clinical measures (10 measures), healthcare spending (38 measures), and employment outcomes (3 measures). The results showed that after an 18-month intervention, two of the self-reported behaviors (regular exercise and actively managing weight) were positively affected by the workplace wellness program treatment versus the control group with no wellness programming. All other variable measures were not significantly affected by the worksite treatment.

Nevertheless, according to a 2018 survey report, the primary purpose of HWPs is shifting from a focus on cost control to a more holistic, employee-centered approach (International Foundation of Employee Benefit Plans [IFEBP], 2018). This is reflected by the additional wellness offerings that expand beyond the physical health dimension to address community and social health, employee growth and purpose, and mental health (IFEBP, 2018). The report findings showed that organizations that primarily offered wellness initiatives to improve worker health and well-being (72.7%) exceeded organizations that offered wellness initiatives to control or reduce health care costs (27.3%; IFEBP, 2018).

Despite the valuable outcomes that can result from implementing HWP in the general workforce, relatively little research has centered on the presence and effectiveness of HWP in higher education settings (Amaya et al., 2019; Hill-Mey et al., 2015). Community colleges (CC) are even less observed in the literature when compared to four-year universities. CCs represent a viable location from which health and wellness can be promoted to multiple demographic groups (Linnan et al., 2010; Sell, 2005; Tapps et al., 2016). For example, CCs are deployed across the United States, both in urban and rural settings. There is a ripe opportunity for HWP initiatives to reach CC employees, students, and the communities in which CCs are enmeshed. Yet, in a recent study of CCs accredited by the Southern Association of Colleges and Schools (SACS), 42% (27 out of 64 responding CCs) offered HWP; and participation rates in HWP initiatives ranged from 5 to 15% (Thornton & Johnson, 2010).

Regardless of setting, HWP face numerous challenges, such as lack of employee awareness, inconsistent participation rates, failure to reach employees with the greatest health needs, the legal implications of program participation (e.g., HIPPA or the Americans with Disabilities Act of 1990), budgetary constraints, and diminishing programs. One of the developing areas of research within workplace wellness explores the ramifications of leadership support for HWP (Hoert et al., 2018). In their literature review, Della et al. (2010) found that management support for HWP is often referenced and discussed by researchers but rarely measured. Yet, the support of organizational leaders is needed to lay the foundation for HWP, promote HWP success, and establish positive worksite wellness culture (Dejoy et al., 2009; Hill & Korolkova, 2014; Hill-Mey et al., 2013; Linnan et al., 2017; Rinaldi-Miles & Das, 2016; Rose et al., 2017).

Reputable organizations demonstrate the importance of leadership support for employee wellness (AHA, 2019a; Centers for Disease Control and Prevention [CDC], 2019a; Wellness Councils of America [WELCOA], 2020). For example, the WELCOA well workplace model includes Seven Benchmarks of success for workplace wellness programs (WELCOA, 2020). The first benchmark is committed and aligned leadership. This prioritized component of the model demonstrates that the most successful worksites with wellness programs have leaders who are deeply committed to their employees' well-being and serve as wellness role models in their personal lives (WELCOA, 2020). Within higher education, specifically at the CC level, this is comparable to the board, chancellor, and campus president support for wellness within the system. Obtaining leaderships' support for wellness is a crucial first step in implementing and adopting a prosperous HWP.

Healthy People 2020 (2019) recognizes the importance of leveraging health through educational and community settings. According to Healthy People 2020 (2019), programs that incorporate the multiple settings of schools, worksites, health care facilities, and communities can have a greater impact than programs using only one setting. CCs represent all four of these settings and are in a position to support research examining how assets can be optimized to serve the health needs of campus constituents.

Statement of the Purpose

The purpose of this study was two-fold: (a) to examine CC employees' awareness, usage, and perceptions of leadership support for HWPs; and (b) to explore potential differences across leadership levels, employment role, and campuses.

Research Questions

The following research questions guided this study:

1. Is there a relationship between CC employee usage, awareness, and perceptions of leadership support for HWP?
2. Is there is a statistically significant difference in CC employee perceptions of leadership support for HWP across three levels of leadership in a CC system?
3. Is there is a statistically significant difference in CC employee awareness, usage, and perceptions of leadership support for HWP across multiple campuses within a CC system?
4. Is there is a statistically significant difference in CC employee awareness, usage, and perceptions of leadership support for HWP across employment roles?

Hypotheses

1. There will be no statistically significant relationship between CC employee awareness, usage, and perceptions of leadership support for health and wellness benefits and programs.
2. There will be no statistically significant difference in CC employee perceptions of leadership support for HWP across three levels of leadership.
3. There will be no statistically significant difference in CC employee awareness, usage, and perceptions of leadership support for HWP across multiple campuses.
4. There will be no statistically significant difference in CC employee awareness, usage, and perceptions of leadership support for HWP across employment roles.

Delimitations

The current study has the following delimitations:

1. Potential participants in this study included all employees of one CC system located in North Texas.
2. Potential participants in this study included full- and part-time employees.
3. Potential participants in this study were 18 years of age and older.
4. Survey questions pertaining to perceived employee leadership support for wellness programming and benefits are a subset of the Leading By Example (LBE) survey instrument and were slightly altered to align with the study purpose. The researcher modified the questions by changing the beginning sentence structure to read “this leader” so participants could answer based on each leadership level rather than the worksite as a whole (Della et al., 2008; Hoert et al., 2018).

Limitations

The current study has the following limitations:

1. The sample was comprised of full- and part-time employees of one CC system located in North Texas; therefore, external validity is limited, and study results cannot be generalized.
2. The study instrument was slightly modified from an existing, validated instrument; the modified instrument was not tested for validity or reliability prior to dissemination.
3. Survey data were self-reported and therefore subject to self-reporting bias, which can limit external validity.

4. The employees who chose to participate in the study may systematically differ on unmeasured characteristics from those who choose not to participate in the study, which can limit internal validity.

Assumptions

The current study has the following assumptions:

1. Employees voluntarily completed the survey.
2. Employees answered the surveys accurately, honestly, and to the best of their ability.
3. Employees were able to read and understand the survey questions in English.
4. Employees were interested enough in the topic to take the time to complete the survey.

Definition of the Terms

Absenteeism: “The time an employee spends away from work. Absences can be scheduled (e.g., vacation time) or unscheduled (e.g., due to illness or injury)” (CDC, 2019b, p. 1).

Comprehensive Wellness Program:

Refers to programs that contain the following elements: (1) health education that focuses on skill development and lifestyle behavior change in addition to information dissemination and awareness building, preferably tailored to employees interests and needs, (2) supportive social and physical work environments, including established norms for healthy behavior and policies that promote health and reduce the risk of disease, such as worksite smoking policies, healthy nutrition alternatives in the cafeteria and vending services, and opportunities for obtaining regular physical activity, (3) integration of the worksite program into the organization’s administrative structure, (4) related programs, such as employee assistance programs, and (5) screening programs, preferably linked to

medical care service delivery to ensure follow-up and appropriate treatment as necessary and to encourage adherence. (Healthy People, 2010, p. 19)

Employee Wellness Program: Organized, employer-sponsored programs that “strive to promote a healthy lifestyle for employees, maintain or improve health and wellbeing, and prevent or delay the disease onset” (National Institute of Health Care Medicine [NIHCM], 2011, p. 3).

Health Climate: “Employee perceptions of active support from coworkers, supervisors and upper management for the physical and psychological well-being of employees” (Zweber et al., 2016, p. 250).

Leadership Support: “Leaders’ involvement in, and promotion of, activities, policies and practices that encourage the development of such a climate” (Milner et al., 2013, p. 515).

Organizational Climate: “The shared perceptions held by members of an organization concerning the practices, procedures, and types of behaviors that get rewarded and supported in a particular setting” (Reichers & Schneider, 1990).

Participation: “The extent to which employees behaviorally engage in a voluntary workplace health program” (Ott-Holland et al., 2017, p. 163).

Policy: “A definite course or method of action selected from among alternatives and in light of given conditions to guide and determine present and future decisions” (Merriam-Webster, n.d.b). “Policies are intended to provide guidance for an organization’s desired outcomes” (Stewart, 2012, p. 40).

Presenteeism: “The decline in productivity associated with employees who come to work but perform with suboptimal health” (Brewer et al., 2010, p. 9).

Wellness: “An active process through which people become aware of, and make choices toward, a more successful existence” (National Wellness Institute, 2019, para. 3). There are two focal

concerns of wellness: “the realization of the fullest potential of an individual physically, psychologically, socially, spiritually and economically, and the fulfillment of one’s role expectations in the family, community, place of worship, workplace and other settings” (Smith, et al., 2006, p. 344).

Worksite Wellness Program:

An organized program in the worksite that is intended to assist employees and their family members (and/or retirees) in making voluntary behavior changes which reduce their health and injury risks, improve their health consumer skills and enhance their individual productivity and well-being. (WELCOA, 2006, p. 4)

Importance of the Study

The advantages of established HWP are evident in the literature as HWP are simultaneously positioned to benefit both the employer and the employee. However, there has been less workplace wellness research conducted for institutions of higher education compared to corporate organizations. Within higher education, CCs are an understudied setting and underutilized resource for disseminating health and wellness programming (Hill-Mey et al., 2015). CCs reflect an opportunity for wellness programming growth as CCs are in every state (National Center for Educational Statistics [NCES], 2008) and are located in both urban and rural settings (Linnan et al., 2010). By exploring employee wellness programming perceptions and potential differences among campuses, employment roles, and leadership level support, there is strong potential for bolstering health and wellness programming in the CC setting.

Leadership support for wellness has been increasingly studied within the area of workplace wellness within the last 15 years (Dejoy et al., 2009; Hill & Korolkova, 2014; Hill-

Mey et al., 2013; Linnan et al., 2017; Rinaldi-Miles & Das, 2016; Rose et al., 2017). Research findings have also highlighted the importance of increasing awareness of HWP's through communication with CC employees to promote key health messages, programs, and healthy behaviors (Dejoy et al., 2012; Hill-Mey et al., 2013; Miller, 2012; Rinaldi-Miles & Das, 2016). The current study fills a gap in the literature by examining whether differences exist in college employee perceptions of wellness support across three levels of leadership (district administration, campus administration, and direct supervisor). In addition, this study has the potential to provide insight into possible ways leadership at different levels can improve strategies to disseminate wellness information and programs and engage employees across different employment roles and across multiple campuses. Study findings can also promote better understanding of employee-specific awareness, usage, and perceptions of support for health and wellness programming that can serve as a baseline from which to grow wellness initiatives. The current study provides insight into changes and/or interventions that can take place within CC HWP's to create a system-wide culture of health. In turn, there can be a rippling effect to promote health and wellness to a diverse campus population, families, and local communities (American Council on Education, 2019; Linnan et al., 2010; Tapps et al., 2016).

CHAPTER II

LITERATURE REVIEW

The purpose of this chapter is to explore the current HWP literature regarding program awareness, usage, and leadership support, specifically in the higher education setting. First, this review describes the levels of risk behaviors and chronic health conditions experienced in the United States, and how the workforce is affected, thus inciting concerns and fueling the emergence of HWPs. The review then describes HWP literature pertaining to each of the study variables: (a) HWP in the higher education setting, including the CC setting, (b) HWP awareness, (c) HWP usage, (d) HWP leadership support, including the higher education setting and across levels of leadership, and (e) HWP in relation to employment role. Figure 1 provides a representation of the progression of the literature review.

Figure 1

Visual Representation of Literature Review



National Picture

Unhealthy behaviors, such as physical inactivity, tobacco use, poor nutrition, frequent alcohol consumption, and poor stress management have increased in recent decades within the United States causing an “epidemic of lifestyle diseases” (Mattke et al., 2013, p. 1). The repercussions of such lifestyle choices contribute to individual health risks such as stress, poor mental health, obesity, and malnutrition, which ultimately lead to chronic diseases such as high blood pressure, heart disease, diabetes, chronic pulmonary conditions, and osteoarthritis. These chronic diseases and conditions increase pain and ailments, decrease quality of life, and lead to premature death and disability. With over 140 million employed people spending close to a quarter of their waking lives at work in the United States, the workplace is an opportune setting to support employees and provide avenues for healthier lifestyle choices (Onufrak et al., 2018). According to survey data from 2017, a national average of 46.1% of worksites in the United States offered some type of HWP. This included a range of program types ranging from distributing health-focused brochures to worksites offering onsite physical activity facilities (CDC, 2017). This survey’s findings also demonstrated that more health promotion programs were more prevalent among larger worksites than smaller worksites. This is due to the fact that smaller worksites have “fewer resources to spend on health promotion or lack the skill, expertise, and capacity to put health promotion programs in place” (CDC, 2017, p. 19). The most recent 2018 Employer Health Benefits Survey findings were in alignment with the 2017 CDC survey data. This survey’s authors determined that 53% of small firms (3 to 199 employees) and 82% of large firms (200 or more employees) provided health programming in at least one of three areas: smoking cessation, weight management, and behavioral or lifestyle coaching (The Kaiser Family Foundation, 2018). From an industry perspective, only 29% of worksites classified in the

education services/health care & social assistance category offered some type of health promotion programming in 2017 (CDC, 2017). The relatively low percentage of HWPs within the education industry indicates a sector to explore. This chapter highlights the limited literature regarding HWPs specifically in the CC setting within higher education.

Aside from the negative effects on the individual, poor health behaviors also impact the economic sector of the United States through increased health care costs and decreased productivity (Mattke et al., 2013) as measured through presenteeism and absenteeism in the workplace (Chen et al., 2015). Asay et al. (2016) examined the costs associated between employee absenteeism and five study conditions: smoking, physical inactivity, and obesity (three risk factors), and hypertension and diabetes (chronic diseases). The results revealed that each risk factor or chronic disease was attributable to costs greater than \$2 billion yearly in just absenteeism alone. The absenteeism costs ranged from \$16 to \$81 per employee for small employers and \$17 to \$286 per employee for large employers per employee per year (Asay et al., 2016). The national health expenditures for the United States shows trends for increasing costs throughout the past 50 years with a total of \$3.3 trillion dollars spent in 2016 (CDC, 2016). In response to the rising health expenditures and costs associated with employee health care, workplace wellness initiatives emerged. With 88% of males and 75% of females working full-time (more than 35 hours per week), employers are heeding the education and advice of health agencies, such as AHA, WHO, CDC, and National Institutes of Health [NIH] who have called for more workplace health promotion initiatives (Bureau of Labor Statistics, 2017). For example, the AHA (2019b) claims that encouraging a healthy workplace can ultimately lead to increased productivity, decreased absenteeism, and decreased spending on health care. The

organization offers tools and services that are science-based and evidence-informed to help employers promote a healthy environment in the workplace.

The United States government has also taken steps since 2000 to promote workplace wellness. For example, the Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity in 2001 encouraged the nation's employers to "create opportunities for regular physical activity during the workday" (U.S. Department of Health and Human Services [HHS], 2001). Also, every decade, the Office of Disease Prevention and Health Promotion reevaluates Healthy People framework and develops a new set of objectives as targets in an attempt to improve the health of Americans ([ODPHP], 2019). Although we are now in the midst of a more streamlined Healthy People 2030 framework, and the objectives have been reduced, there were two topics under the Healthy People 2020 initiative worth mentioning that address workplace wellness: occupational safety and health and educational and community-based programs. The latter topic was more directly related to the current study in which the setting was higher education. The goal for the Healthy People 2020 topic of educational and community-based programs (ECBP) was to "increase the quality, availability, and effectiveness of educational and community-based programs designed to prevent disease and injury, improve health, and enhance quality of life" (Healthy People 2020, 2019, para. 1). The Healthy People 2020 goal included "educational and community-based programs and strategies are designed to reach people outside of traditional health care settings [such as] schools, worksites, health care facilities, and communities" (Healthy People 2020, 2019, para. 3). Furthermore, health promotion delivered through multiple settings can have a greater impact than programs delivered in one setting (Healthy People 2020, 2019).

There were 19 objectives designed to achieve the ECBP goal. Educational and community-based program objectives seven through ten best aligned with HWPs in the CC setting. Objective seven was to:

Increase the proportion of college and university students who receive information from their institution on each of the priority health risk behavior areas (all priority areas; unintentional injury; violence; suicide; tobacco use and addiction; alcohol or other drug use; unintended pregnancy; HIV/AIDS and STD infection; unhealthy dietary patterns; and inadequate physical activity). (Healthy People 2020, 2019, p. 3)

Objective eight was: “Increase the proportion of worksites that offer an employee health promotion program to their employees” (p. 4). Objective nine was to: “Increase the proportion of employees who participate in employer-sponsored health promotion activities” (p. 4).

Objective 10 was to: “Increase the number of community-based organizations (including local health departments, Tribal health services, nongovernmental organizations, and State agencies) providing population-based primary prevention services” (p. 4) in the areas of injury, violence, mental illness, tobacco use, substance abuse, unintended pregnancy, chronic disease, nutrition, and physical activity (Healthy People 2020, 2019).

In summary, Healthy People 2020 emphasized using “existing social structures” for health promotion programming to reach a vast audience within a particular setting. In doing so, the time and resources required for program development are reduced and HWP impact is maximized (Healthy People 2020, 2019). With most of the research in HWPs conducted in business and industry settings (Hill & Korolkova, 2014; Hill-Mey et al., 2013; Hill-Mey et al., 2015), the establishment of the educational and community-based setting as a goal is key to

conveying the importance and impact on health that can be made to the higher education working population and community.

With the launch of the current Healthy People 2030 framework, the goals and objectives that most closely relate to the topic of this study have changed. The “workplace” settings and systems topic has the goal to “promote the health and safety of people at work,” and the “workforce” population topic has the goal to “strengthen the workforce by promoting health and well-being” (Healthy People 2030, 2020). The previous Healthy People 2020 ECBP objectives seven, nine, and 10 have been removed. Objective eight now falls under the topic of “workplace” (settings and systems topic) or “workforce” (population topic) and within the “Educational and Community-Based Programs” workgroup. The two related general objectives are: “increase the proportion of worksites that offer an employee physical activity program,” and to “increase the proportion of worksites that offer an employee nutrition program.” A third related workforce objective is to “increase the proportion of worksites that offer an employee health promotion program” (Healthy People 2030, 2020).

Employee Wellness in Higher-Education

Like their corporate counterparts, college and university employees are positioned to substantially benefit from participating in HWP (Bright et al., 2012; Tapps et al., 2016). Colleges and universities employ over 3.5 million employees in the United States (American College Health Association [ACHA], 2019a), but their employees are often unhealthy, which increases associated health care costs (Hill-Mey et al., 2015). However, there has been minimal research conducted on worksite health promotion programs in any higher education setting (Hill & Korolkova, 2014; Hill-Mey et al., 2013; Hill-Mey et al., 2015). The few researchers who have

addressed university employee wellness outcome studies often cite literature from non-university-based employee wellness programs (Linnan et al., 2010). The dearth of literature on HWP in higher education may be attributed to various reasons, including an insufficient number of university employee wellness programs (Amaya et al., 2019; Hill-Mey et al., 2013; Hill & Korolkova, 2014). In addition, public institutions may confront different barriers than private companies in creating and maintaining worksite health promotion programs and implementing policy at the state agency level (Bibeau et al., 2009). Regularly, university administrators have confronted diminishing state appropriations, they experience pressure to offset rising tuition and fees, and they are asked to “do more with less,” (Lloyd et al., 2017, p. 880). University administrators may also be unable to use state funding or students’ tuition and fees for health promotion programming, which, as in businesses, is not always perceived as an infrastructure priority (Lee et al., 2010). Other barriers discussed in the literature that involve maintaining such programs have included no time during the day (Ball, 2009; Dejoy et al., 2012), inadequate or “unwelcoming” exercise space (Terrell, 2015), low participation rates, cost, time, and a lack of administrative support (Hill & Korolkova, 2014; Rinaldi-Miles & Das, 2016). Identified barriers to maintaining HWPs include “bureaucratic structure and departmental boundaries” that hinder employee health promotion initiatives (Reger et al., 2002, p. 508).

Despite these barriers, there is evidence of successful employee wellness initiatives and promotion also cited in the literature. In 1985, the ACHA organized the Task Force for National Health Objectives for 2000 to establish health priority areas for campuses (ACHA, 2019b). Healthy Campus (for the year 2000) was established and is often referred to as the “sister document” to Healthy People. Now amid Healthy Campus 2020, and on the verge of releasing Healthy Campus 2030, ACHA offers many helpful resources to educate, advocate, and conduct

research to advance health and wellness in the collegiate setting. For example, the organization provides the following resources: faculty/staff and student national health objectives (ACHA, 2019a); assessments used for benchmarking wellness information (ACHA, 2019c); health and wellness consulting (ACHA, 2019d); continuing education opportunities (ACHA, 2019e); a tool-kit for implementing health objectives (ACHA, 2019a); and guidelines, recommendations, and position statements to support health professionals in planning, implementing, and evaluating health promotion programs on college campuses (ACHA, 2019f).

In addition, the National Intramural and Recreational Sports Association (NIRSA) partnered with researchers to conduct interviews with seven NIRSA-member universities that offered robust employee wellness programs. The seven institutions included University of Alabama, University of North Dakota, Cornell University, Oakland University, Stanford University, Texas A&M University-Corpus Christi, and Oklahoma State University. The interview results provided valuable insight into established wellness programs and objectives, program components, implementation and participation, program outcomes, and recommendations (Hill & Korolkova, 2014). The NIRSA community offers education, developmental opportunities, support, and experience in creating recreational and wellness programming (NIRSA, 2019).

University-based health and wellness research has focused mainly on the results of programs aimed to improve specific dimensions of health. For example, studies that examine implementation and evaluation of programs focusing on the physical dimension of wellness are prominent in the literature (Bezner et al., 2017; Butler et al., 2015; Byrne et al., 2011; Gilson et al., 2009; Haines et al., 2007; Quick et al., 2015; Speck et al., 2010; Touger-Decker et al., 2008). Employee wellness programs in higher education typically focus on physical inactivity, obesity,

weight management, and smoking cessation (Hill & Korolkova, 2014; Linnan et al., 2017; Thornton & Johnson, 2010). These topics are important but reflect a narrow focus that does not encompass employee diversity with multiple health needs and interests (Tapps et al., 2016). Such narrow programming is especially problematic in CCs where there are more Black and Hispanic ethnic minorities employed compared to four-year universities (NCES, 2008). Therefore, the limited scope of HWP in higher education highlights a gap in the literature regarding HWP in the CC setting.

Community College Setting

The American Association of Community Colleges Board of Directors acknowledged “the importance of health in the learning, retention, productivity, and well-being of students, faculty, and staff alike” and encouraged the “integration of health into all facets of community college life” (Ortenritter & Barnett, 2002). More than 15 years later, CC personnel are still attempting to incorporate HWP into their culture effectively. Given the increase in budgetary pressures that CCs leaders and employees face, enrollment fluctuations, ever-changing technology, and high-level performance expectations (Sink et al., 2003), there is a need for HWP to help improve work conditions for employees.

With little research regarding health and wellness programming in the four-year university setting, even fewer researchers focus on wellness programming in the CC setting (Linnan et al., 2010; Linnan et al., 2017; Thornton & Johnson, 2010). This is notable considering the multiple resources that CCs organically have in place. For example, Linnan et al. (2010) emphasized four reasons why CCs are best suited to deliver health promotion interventions. First, CCs are widespread; they are found in both rural and urban areas in each state across the country. Secondly, most CCs are a part of a statewide system or multi-campus infrastructure. This

geographic diversity allows well-planned and effective HWP efforts to be more effectively and efficiently dispersed to more people across a larger area. Third, there is a ripple effect that worksite health promotion efforts can create through employee role modeling (for each other and students) and their influence within ties to the greater community. Fourth, CCs have health services, academic programs, and community classes already in place to deliver health education, offer trainings, and host activities to help accomplish Healthy People objectives (Linnan et al., 2010). In addition, programs that incorporate multiple settings (e.g., schools, worksites, health care facilities, and communities) yield more positive impacts than programs within only one setting (Healthy People 2020, 2019). CCs uniquely integrate all four settings.

In addition to two studies in the 1990s and early 2000s (Ness, 1997; Sink et al., 2003), Linnan et al. (2010) investigated the potential for employee wellness programming in CCs. The purpose of their study was to determine the status of worksite health promotion efforts, evaluate the viability of instituting worksite health promotion programs, and evaluate each college's interest in participating in future health promotion programming and research. The researchers distributed a survey to the presidents of each CC in the North Carolina Community College System and visited six campuses for tours, interviews, and verification of survey information. There was a high survey response rate of 81% (48 out of 59 college presidents). The results showed that 27% of the CCs reported having HWPs, cafeterias (77%), gym/fitness facilities (65%), and flex-time schedules (50%) as "supports" for worksite wellness. In addition, CCs with established HWPs were more urbanized, had more employees (709.5 employees/231.9 staff in urban settings versus 468.8 employees/165.1 staff in rural settings), and were more likely to have a wellness committee. During the site visits, campus leaders displayed enthusiasm toward worksite wellness programming; and some leaders reported having access to personnel or limited

financial resources to help develop or support such a program. The onsite visits also revealed barriers to providing an employee wellness program such as widespread availability of inexpensive, yet high-fat and high-calorie food and beverage choices and easy access to fast food in the surrounding areas. Another commonly mentioned barrier in the same study was low employee participation in wellness programming. Reasons for the low participation rates included employee commutes to and from campus that prevented participation before or after work hours and lack of engagement for numerous part-time employees.

Linnan et al. (2017) highlighted the HHS's (2010) five fundamental facets for a best practice approach to improve employee health:

1. Health education programming, including skill development and behavior change.
2. Social and physical environments that support healthy behaviors.
3. Integration of the worksite program into the organization's human resources benefits and environmental infrastructure.
4. Linkages between health promotion programs and related programs like employee assistance.
5. Health screenings with appropriate follow-up education.

In a study based on these five fundamental facets, Linnan et al. (2017) evaluated the status of and support for health promotion efforts among North Carolina Community College System members. More specifically, the researchers assessed leadership support, environmental/organizational support, health and wellness policies, current efforts, and training and technical assistance needs to implement wellness programming. Data collection involved administering of a 15-item survey to CC presidents and a 60-item questionnaire to the campus wellness coordinators. Additionally, researchers conducted five onsite visits to gather more in-

depth information to answer the research questions. These site visits included interviews with the wellness coordinators of institutions and with wellness committee members. The response rate for the presidents was 100% and 90% for the wellness coordinators.

Overall, 9.8% of the CCs offered comprehensive health promotion programs that included the five facets as described by the HHS. The colleges that offered comprehensive programs or at least one of the facets of a comprehensive program were larger than colleges that did not offer programming (over 250 employees). Of all of the five facets, social and physical environment was the most prevalent (88.2%). Social and physical environment offerings include smoking cessation programs, physical activity, and weight loss promotion programs. The least prevalent facet was integrated health promotion programming, including a designated health and wellness promotion budget or staff (27.5%).

Regarding leadership, 89.7% of the presidents surveyed felt that offering employee health promotion programs was “very” or “extremely” important; and 84% showed interest in partnering with a research group to promote health at their college. Most of the participating presidents (62.1%) also perceived their employees as being “very” or “extremely” interested in participating in health promotion programs. Compared to smaller colleges, larger colleges were more likely to offer a greater assortment of wellness and screening services and more likely to offer physical activity ($p = .001$) and blood cholesterol screening programs ($p = .04$). The three most commonly offered screenings across all colleges were blood pressure (41.2%), blood cholesterol (27.5%), and diabetes (23.5%). The most common types of wellness programs included physical activity (70.6%), tobacco cessation (51.0%), weight loss/weight management (49.0%), and nutrition and/or healthy eating (47.1%). The least common wellness program was alcohol and/or drug abuse prevention (9.8%).

Regarding the variable of environmental supports and policies, three areas were assessed: physical activity, nutrition, and employee wellness committees. Overall size differences were noted. Larger campuses were more likely to offer fitness centers ($p = 0.02$) and have a cafeteria ($p = 0.02$) than smaller campuses. Concerning physical activity, 62.7% reported walking trails, 52.9% offered an on-site fitness facility, and 51.0% noted a fitness center within one mile of campus. Approximately 20.6% reported signage to promote the use of stairs, and 20.6% had a policy where employees can use paid workday time to exercise. Concerning nutrition, 80.4% of the campuses reported cafeteria services, 56.9% indicated having healthy food options available, and 23.5% indicated labeling healthy food options. Approximately 25.5% of the campuses had a healthy catering policy where more nutritious food options could be provided during campus events. Additionally, just over half of the campuses (52.9%) had a smoke-free policy, with 43.1% reporting restricted smoking areas with signage. Lastly, 59% of the campuses had an employee wellness committee; and 21.6% had a wellness-related website (Linnan et al., 2017).

During on-site visits and interviews with wellness coordinators, three of the five coordinators mentioned that their employee wellness committee was active “to some extent.” In contrast, four of the five mentioned that their employee wellness committee was effective in promoting health “to some extent.” The on-site visits and interviews with the wellness coordinators provided much more in-depth insight into program implementation and considerations to optimize and grow comprehensive worksite programs. Some of the top barriers to this goal included low participation rates, scheduling conflicts, and inconsistencies when implementing planned programs. Wellness coordinators also mentioned that internal support for a comprehensive worksite health promotion program includes having a dedicated wellness

contact or personnel, a budget, negotiated local partnerships, and regular communication that includes wellness “hot topics” (Linnan et al., 2017, p. 300).

Within the last decade, researchers have agreed that the CC setting is an underutilized yet ideal location for disseminating health promotion programs (Hill-Mey et al., 2015; Linnan et al., 2010; Pokhrel et al., 2014). Overall, the study by Linnan et al. (2017) demonstrated the potential for promoting employee health in the CC setting in addition to resources and barriers that can streamline future development, implementation, and evaluation of comprehensive employee wellness programs. Furthermore, leadership’s willingness to partner with researchers to enhance health promotion efforts was pertinent and points to the need for further worksite wellness research or studies (Linnan et al., 2010, 2017).

In another study, Thornton and Johnson (2010) analyzed the prevalence and characteristics of CC employee wellness programs. Specifically, a random sample of 250 public CCs accredited by the SACS participated. An inquiry survey was sent to the institutions’ provost (or similar position) of the institutions with instructions to direct the survey to the wellness director or primary designated health professional on campus. The response rate was 25.6%. The most notable result of the study was that only 42.2% of the institutions offered an HWP. A majority of the responses came from an internal, part-time director (34.6%), followed by a full-time director (19.2%), a wellness committee (19.2%), a full-time director from outside of the institution (11.5%), a school nurse (3.9%), and other (employment status not indicated; 11.5%). This is consequential because in such studies, the person completing the survey is an indicator of the level of commitment toward employee wellness by the institution (Thornton & Johnson, 2010).

Wellness directors are also expected to report to an administrative body (Thornton & Johnson, 2010), which generally differs at each institution. In the study by Thornton and Johnson (2010), the wellness committee was the main administrative body (33.3%), followed by the health and physical education department (25.9%), human resources (14.8%), student affairs (11.1%), nursing department (7.4%), and other (7.4%). The researchers also examined the wellness program coordination site, which also seemed to vary by institution. The health and physical education building was the top site (37%), followed by the student center (18.5%), nurses' station, human resources, and academic building (all at 7.4%), continuing education (3.7%), and other (18.5%). It is important to mention the vast number of different employee wellness directors, administrative bodies, and sites because it demonstrates a lack of consistency, structure, dedication, and perhaps allegiance to wellness programs.

In addition, participation rates for HWPs were between 5% and 15%. The top responses for employee wellness activities included walking (85.2%), nutrition awareness (74.1%), health fair (63%), health screenings and weight loss (59.3% each), and aerobics and weight training (55.6% each). Some of the participation incentives included time off during work hours (79.2%), prizes and drawings (70.8%), continuing education credit (12.5%), and college credit (4.2%). Lastly, wellness directors from 11 out of the 27 institutions indicated they had a wellness budget, and only nine of the 11 indicated a specific amount allocated to their budget. Furthermore, this study revealed that financial support of SACS-accredited public CC employee wellness programs is less than other CCs and university funding of wellness programs (Thornton & Johnson, 2010). Thornton and Johnson (2010) also described how a relative lack of funding may indicate that most CC decision-makers are not aware of effective employee wellness

programs' impact on absenteeism, productivity, health care costs, and morale. They asserted that leadership should be updated on the benefits of employee wellness programs.

Thornton and Johnson (2010) further demonstrated that CC opportunities for employee wellness are often overlooked, and CC systems are not meeting the employee wellness goals set by Healthy People. The authors also revealed that the prevalence of employee wellness programs in higher education is below that of prior research completed in the 1980s and 1990s (Thornton & Johnson, 2010). Thus, it is important to examine the variables that may affect the success of employee wellness programming.

Usage, Awareness, and Support in Worksite Wellness Programs

The three variables of usage, awareness, and support appear to affect the success of wellness programming. However, the literature is not clear regarding the exact relationship that exists; thus, the current study intends to explore a possible relationship between awareness, participation, and support for wellness programming.

Usage of Worksite Wellness Programs

Participation rates have been regarded as the primary measure of success for an HWP, and many researchers have found that employee participation is central to leveraging the value of health promotion programming (Goetzel et al., 2001; Goetzel et al., 2007; Grossmeier, 2013; Hill & Korolkova, 2014; IFEBP, 2018; Taitel et al., 2008; Terry et al., 2008). In the IFEBP (2018) report of employers across multiple industries, the HWP initiatives that generated the highest participation rates included health screenings (49%), flu shot programs (47.5%), HRAs (46.4%), health fairs (40.3%), and fitness programs/competitions (29.3%). According to Ball (2009), 75.9% of higher education employees surveyed felt they would use a fitness center, 75.6% would use health screening tests, 69.6% felt that they would utilize paid time to exercise, and 57.5%

and 53.0% felt that diet or exercise counseling and onsite exercise classes, respectively, were policies perceived to encourage positive health behavior change. The IFEBP (2018) survey report also stated that the HWPs with above-average participation rates shared a common characteristic of having organizational leadership that helped communicate HWP efforts. Even though leading experts have identified high rates of engagement and participation as essential components to a successful worksite health promotion program, HWP participation has been reported as generally low, especially without the use of incentives (Ball, 2009; Goetzel et al., 2007; IFEBP, 2018; The Rand Corporation, 2015). Barriers to HWP participation include lack of time, cost, lack of interest, lack of support, and lack of awareness (Ball, 2010; Goetzel et al., 2001; Kruger et al., 2007; Taitel et al., 2008; Terrell, 2015).

HWP Awareness

Lack of employee participation (usage) in their HWP can be attributed to several factors, including program offerings that do not interest employees or have little significance to their personal health. Another possible reason for a lack of participation may simply be due to a lack of program awareness (Dejoy et al., 2012; Hill-Mey et al., 2013; Miller, 2012; Rinaldi-Miles & Das, 2016). According to Miller (2012), a 2012 Colonial Life survey found that 52% of surveyed employees reported they were *somewhat* or *not at all knowledgeable* about their employer's wellness program offerings. Insufficient wellness program knowledge was greater in younger workers, less-educated workers, and lower-paid workers. According to Walters (2015), merely providing an HWP is not enough to evoke employee participation. Employees need continuous communication from various of resources to incite and increase awareness of HWP and then use HWP (Walters, 2015).

One qualitative study conducted focus groups of university employees to better understand the effectiveness of an HWP (Hill-Mey et al., 2013). Specifically, the researchers wanted to examine how the University of Utah Employee Wellness Program (WellU) impacted behavior change, if incentives influenced participation, what motivators and barriers for participation were most impactful, and if participation in the program influenced participation in other health-related sponsored programs or community activities (Hill-Mey et al., 2013). The authors described a discernible weakness of the program to be the general “lack of knowledge about the extensive health services available across the University” (Hill-Mey et al., 2013, p. 163). For example, only 13% of employees were aware of the University’s employee wellness Passport Program. One of the focus group respondents expressed confusion about the health-related activities offered and claimed, “I didn’t understand this was part of the worksite health promotion program” (Hill-Mey et al., 2013, p. 160). Another participant used the nutrition consultation services and stated “her consultations made her more aware of what she needed to eat in order to be healthy,” (p. 160) and “being more aware of what she was eating made a positive change in her life” (Hill-Mey et al., 2013, p. 160). When asked which barriers prevented employees from participating in HWPs, 83% of the participants emphasized that communication was weak and non-participants contended that they did not know about the program or how it worked. Three main themes about program improvement arose from this study: communication (awareness/knowledge), accessibility, and management support for participation. Regarding communication, the authors suggest educating employees about the services available and improving communication about the programs and their benefits.

Rinaldi-Miles and Das (2016) sought to assess factors that influence participation in worksite physical activity among three universities. The method for this study included the

nominal group technique, which is a type of focus group. The technique allowed for more in-depth and group consensus responses. When the topic of wellness release time, or flex-time, arose as a university policy to overcome the time barrier, some participants claimed they were unaware that the policy even existed. Rinaldi-Miles and Das (2016) also suggested that wellness policies should be clearly and effectively communicated to be successful. This is in accord with other researchers who claim that top-down communication is critical to worksite wellness program efficacy (Linnan et al., 2007; Terrell, 2015). In addition, successful worksite best practice contains ongoing communication and program visibility to the constituents (Rinaldi-Miles & Das, 2016).

Awareness and participation were measures in a study of wellness programming for weight management at 12 of the Dow Chemical Company worksites (Dejoy et al., 2012). One of the study goals was to detect differences between two health promotion intensity conditions: moderate and intense. The two data sources to quantify this included: the Environmental Assessment Tool (EAT) scores and a general employee survey. The EAT was developed for this particular study to collect data pertaining to nutrition and weight management, environmental supports, and organizational characteristics and support (Dejoy et al., 2012). Total EAT scores for all sites, except one, increased from baseline scores. The one site exception had a baseline score that had already exceeded the scores reached by most of the other worksites. EAT results demonstrate improvements in workplace supports for weight management and significant differences by treatment level. The employee survey sought to assess dose and differences between the two intervention conditions in terms of employee awareness, participation, and satisfaction levels across intervention worksites. Although the results for dose were inconclusive, the researchers found that prompting and facilitating positive promotion for healthy

behaviors bolstered employee awareness of their own health and improved their overall perceptions of a supportive workplace (Dejoy et al., 2012; IFEBP, 2018). In addition, when leadership is engaged, motivated, and in a position to support health and wellness programming, increased employee awareness of such programs is expected, and participation is even more likely to occur (Dejoy et al., 2012). Although there appears to be a correlation between HWP awareness and utilization, studies that demonstrate this probable relationship are lacking. It is also important to examine the impact of leadership support on employee awareness and usage of wellness programming and benefits.

Leadership Support for HWPs

Like participation and awareness, the role of leadership support has also been referenced as a necessary determinant in the adoption and success of employee workplace programming (Dejoy et al., 2009). This topic has gained momentum (Milner et al., 2013) with researchers demonstrating that policy, environmental, and general support from leadership provides for a more successful HWP (Dejoy et al., 2009; Hill & Korolkova, 2014; Hill-Mey et al., 2013; Linnan et al., 2017; Lloyd et al., 2017; Rinaldi-Miles & Das, 2016; Rose et al., 2017).

There are many positive outcomes associated with leadership support for HWPs. For example, leadership support has been found to improve employee health outcomes, such as obesity control (Lemon et al., 2009), perceived job stress, increased participation in wellness activities (Hoert et al., 2018), employee morale, psychosocial factors (such as decreased stress and increased engagement; Chen et al., 2015), and health behaviors (healthier eating, weight loss, etc.; Dejoy et al., 2009; Hoert et al., 2018). Leadership support of HWPs has also been linked with benefits for the employer, such as improved employee attendance (Dellve et al., 2007) and improved productivity as measured through presenteeism (Chen et al., 2015). Chen et

al. (2015) found that even if limited changes in an employee's health or health behaviors take place, increased productivity is still an outcome from receiving leadership support for healthy living and physical activity. Additional researchers have identified that leadership support enhances the business's health climate (Barrett et al., 2005; Dejoy & Wilson, 2003; Dejoy et al., 2009). Health climate is defined as "employee perceptions of active support from coworkers, supervisors and upper management for the physical and psychological well-being of employees" (Zweber et al., 2016, p. 250). This recent focus on leadership involvement in employee wellness has also shifted the conventional burden for behavior change from falling solely on the individual to recognizing the role environment and social elements can play in one's health (Noblet & Rodwell, 2010). Additionally, leadership support plays a "symbolic" role in employee wellbeing (Milner et al., 2013, p. 516). Top industry leaders possess influential demeanors regarding the operation of their company. If leaders support employee wellness programming, it conveys that they understand and care for the health needs of their employees and are "prepared to devote considerable time and resources to identify and address priority health issues" (Milner et al., 2013, p. 515). Employees are less likely to engage in HWP if they believe their employers are only ostensibly interested in the program and not genuinely concerned for their health (Noblet & Rodwell, 2010). Employees want to feel that their employer has interest in their physical and mental health (Hill-Mey et al., 2013; Merrill et al., 2012; Merrill et al., 2013).

Wellness organizations assisted with attempts to gain leadership support of employee wellness. The WELCOA is one of the United States' most respected resources for augmenting healthy workplaces in America (WELCOA, 2018). The organization provides the foundation of the "7 Benchmarks" as a framework to help organizations develop strategic wellness

interventions and supportive climates for wellness practices in their workplaces (WELCOA, 2020). The 7 Benchmarks framework evolves with research, and four of the seven current benchmarks deal with support. The 7 Benchmarks are: (a) ensuring committed and aligned leadership, (b) collaborating in support of wellness, (c) collecting meaningful data to evolve a wellness strategy, (d) crafting an operating plan, (e) choosing initiatives that support the whole employee, (f) cultivating supportive health promoting environments, policies and practices, and (g) conducting evaluation, communicating, celebrating, and iterating. Formerly “Capturing Senior Level Support,” the number one benchmark for a successful worksite wellness program is now renamed “Committed and Aligned Leadership.” The revised name infers that leadership support for wellness programs is vital from the start rather than capturing it later.

Allen and Hunnicutt (2006) described the different attitudes that leaders may have regarding wellness programming. They explained that most leaders need assistance in understanding wellness programming research, comprehending the value of health promotion in their institution or system, and developing their roles as wellness leaders. The authors suggested a new approach for wellness organizers to secure leadership support, which is to assist leaders through their own stages of change toward a more positive view of health promotion depending upon where they fall on a continuum of five categories: active opposition (approximately 5% of leaders fit this profile), quiet opposition (approximately 20% of leaders), neutral (approximately 40% of leaders), quiet supporters (approximately 30% of leaders), and wellness champions (approximately 5% of leaders). As of the 2006 study, most leaders surveyed were within the neutral category, with the distribution of responses creating a bell curve (Allen & Hunnicutt, 2006).

Although leadership support for wellness programming has been discussed in the health promotion literature, there have been scant attempts to study or measure it. Most of the research prior to 2008 assessed workplace safety, but few assessed health promotion. Della et al. (2008) developed the LBE tool, funded by the National Heart, Lung and Blood Institute (NHLBI), that assesses various elements of management support and engagement in health promotion. The LBE questionnaire renders opportunities for analysis in health promotion intervention studies, program evaluation, and measuring employee perceptions of the varying elements of manager support, even over time (Della et al., 2008; Della et al., 2010). Della et al. (2010) concluded that the LBE is a valid measurement tool and has the ability to assess and track leadership support for worksite health. The LBE can adequately distinguish differences in employee perceptions across three different job roles (site leaders, health services staff, and the general employee pool) as well as among the three different health promotion conditions (control, moderate, and high health promotion treatment intensities; Della et al., 2010). Thus, the LBE appears to be a viable vehicle instrument for researching the role of leadership support in HWP.

One study's authors utilized the LBE to explore relationships among leadership support, worksite health promotion programs and policies, perceptions of company commitment to health promotion, and employee wellbeing (Milner et al., 2013). The LBE instrument adapted for use in this study measured leadership support in the employer survey rather than the employee survey. The results indicated that leaders whose employees perceive them as committed to their wellbeing tend to have healthier employees. Furthermore, companies with more worksite health promotion policies and programs have employees who are more likely to perceive the companies as committed. Lastly, companies with high levels of leadership involvement tend to be companies with more worksite wellness policies and programs (Milner et al., 2013). Although

study findings revealed no significant relationship between leadership support and perceptions of company commitment to health promotion, there was an indirect relationship between the two through workplace health promotion programs and policies. Likewise, there was not a direct relationship between leadership support and employee wellbeing, but there was an indirect relationship between them through worksite health promotion program and policies and perceptions of company commitment to health promotion. This is noteworthy as it points to the need for further exploration of “perceptions of company commitment to health promotion” (Milner et al., 2013, p. 521) and the workplace setting of higher education.

Dejoy et al. (2012) is another NHLBI-funded study that used the LBE and included a process evaluation analysis that spanned four years at Dow Chemical Company (Dejoy et al., 2012). The aim of the study was three-fold: to determine if environmental interventions were dispensed as planned (intervention fidelity), to monitor shifts in the health climate, and to detect differences among the two health promotion intensity conditions (moderate versus intense). The study was implemented at 12 Dow Chemical worksites. Three worksites served as the control group. Among the nine worksites, five were randomly assigned the intense treatment condition (approximately 6,769 employees), and four were randomly assigned the moderate treatment condition (approximately 1,394 employees). Each of the three goals and the results of the study will be discussed next.

The first goal of the Dejoy et al. (2012) study was a fidelity assessment. Each intervention for the moderate and intense treatment conditions was rated as *low*, *moderate*, or *high* in fidelity (i.e., how well each intervention was implemented at each worksite). There were 11 intervention components, with seven implemented at the moderate and intense treatment condition sites. The seven moderate and intense treatment condition components (*and fidelity*

rating) included: (a) vending machine offerings (*low*), (b) cafeteria offerings (*high*), (c) catering policies (*moderate*), (d) walking paths (*high*), (e) health culture focal points (*moderate*), (f) targeted messages (*moderate*), and (g) employee rewards and recognition (*high*). There were four additional treatment condition components implemented at the intense treatment condition sites that included: (a) organizational goal setting (*moderate*), (b) leadership accountability (*high*), (c) leadership training (*low*), and (d) leadership rewards and recognition (*high*; Dejoy et al., 2012). The EAT was developed to collect data regarding the business's physical environment, policies, ongoing programs, and surrounding community. In particular, the EAT was used to render an objective assessment of environmental supports for healthy eating and weight management at the two intervention sites (moderate and intense). The EAT results demonstrated that "environmental/organizational supports for healthy eating and weight management improved markedly when the interventions were deployed, and as expected, EAT scores were significantly higher at intense than moderate sites" (Dejoy et al., 2012, p. 414). In terms of the fidelity components, it was difficult for the authors to conclude that one of the treatment interventions (moderate or intense) demonstrated more fidelity over the other. In addition, some of the intervention components proved to be challenging to implement (e.g., vending machines and targeted messages) and subsequently, scored low in fidelity (Dejoy et al., 2012).

The study's second goal was to measure employee perceptions of the health climate using three data sources: the LBE questionnaire, participant questionnaire, and employee survey. The LBE was distributed to the three stakeholder groups at each participating worksite: leadership, health services, and employee advisory committee. Although the researchers had found improved LBE scores compared to baseline values, stakeholders at the intense intervention

worksites did not rate their leadership as more supportive than stakeholders rated leadership at the moderate intervention worksites (Dejoy et al., 2012). The participant questionnaire included two additional questions that aimed to quantify employee perceptions of environmental and leadership support for health. The employee survey assessed dose and differences in employee perceptions among the two intervention conditions (moderate and intense). This survey was randomly distributed to 10% of the employees in 2007 ($n = 554$) and 2008 ($n = 428$) as a way to reach employees who may not have completed the initial participant questionnaire or biometric screenings yet were exposed to the intervention. Results from this participant questionnaire indicated that the health climate for both treatment conditions (moderate and intense) were similar (Dejoy et al., 2012).

The study's third and final goal was to detect a dose relationship among the moderate and intense environmental interventions at the large company. The results showed inconclusive evidence for employee awareness, participation, and satisfaction levels between the two conditions. However, the three data sources together (LBE, participant questionnaire, and random sample employee survey) illustrated that the health climates improved from baseline values and were moderately positive at all nine sites throughout the timeframe of the study, regardless of treatment level.

The 4-year study yielded important practice implications. The authors suggested that modifying the work environment to stimulate health behaviors could “serve to heighten and support employees’ awareness of their own health and improve employees’ perceptions of the organization in which they work as health promoting” (Dejoy et al., 2012, p. 416). Carefully planned and instituted environmental interventions of ranging intensities are more likely to be

successful and continue when they align with the other priorities of the organization and become integrated into company culture (Dejoy et al., 2012).

Many employers support wellness programming; however, further studies are needed to examine employee perception of this support (Linnan et al., 2007). Additionally, organizational leadership support for HWP has been linked to increases in employee participation and employee awareness/communication across corporate and industry settings (IFEBC, 2018). However, an actual relationship among the three variables of awareness, usage, and leadership support for HWP has not been established in higher education. In addition, while leadership support is discussed as an important factor influencing the effectiveness of worksite wellness programs, little empirical research has examined leadership support specifically for HWP in higher education.

Leadership Support for HWPs in Higher Education

Higher education institutions are unique and propitious employment settings in which workplace wellness programs have the potential to thrive (Hill-Mey et al., 2013; Linnan et al., 2010; Sell, 2005; Tapps et al., 2016). Not only do higher education institutions already contain health resources (e.g., health services, health-related academic programs, and professionals working in these areas), but a campus community can also positively influence its surrounding larger community. Nevertheless, limited wellness programming research has been conducted in this setting.

Through the use of qualitative methodology, one study examined factors that may influence employees' perceptions of engaging in workplace physical activity across three different universities (Rinaldi-Miles & Das, 2016). This study was grounded in the health belief model (HBM) that guided the questions administered to the participant groups. The HBM

“focuses on the beliefs and attitudes of individuals in an effort to explain and predict health behaviors” (Rinaldi-Miles & Das, 2016, p. 705). Six constructs comprise the HBM: (a) perceived susceptibility, (b) perceived severity, (c) perceived benefits, (d) perceived barriers, (e) cues to action, and (f) self-efficacy (Skinner et al., 2015). Perceived susceptibility refers to an individual’s belief about the possibility of acquiring disease or illness. Perceived severity refers to an individual’s belief about how serious a disease or illness is along with its consequences. Together, perceived susceptibility and perceived severity create an individual’s perceived threat. Perceived benefits refer to the individual’s beliefs in positive and effective consequences that result from taking action. Perceived barriers refer to an individual’s believed obstructions toward advised health behaviors. Cues to action refer to the tactics that can be carried out to initiate positive health behaviors. Lastly, self-efficacy refers to an individual’s belief in their own ability to materialize positive health behaviors (Skinner et al., 2015).

The results that surfaced for perceived threats (susceptibility and severity) to physical inactivity were due to fear of future negative health outcomes, such as chronic disease, decreased quality of life, disability, and burden on family. The perceived benefits focused on the immediate effects of physical activity, notably improved mental wellness, physical health, and overall better quality of life (Rinaldi-Miles & Das, 2016).

Questions pertaining to barriers and cues to action led to many interesting insights. Participants provided common perceived barriers to engaging in HWP followed by corresponding cues to action for effectively overcoming them. For example, barriers to workplace physical activity included lack of access to on-campus recreation facilities, cost, time, and low support from administration. Responding cues to action from some participants included free membership to the campus recreation center, whereas others noted that even

reduced membership fees would be a supportive administrative gesture to encourage employee physical activity. Another barrier mentioned was the fact that there were more physical activity opportunities for students but not as many for faculty and staff. This point can be validated as the wellness research in higher education focuses more on student needs as opposed to employee needs, which are routinely different (Haines et al., 2007; Linnan et al., 2010; Sell, 2005; Tapps et al., 2016). This barrier is particularly meaningful as it exposes a unique challenge for HWP in higher-education. Colleges and universities are not only student-oriented, they are also worksites for numerous employees (Rinaldi-Miles & Das, 2016). Therefore, higher-education employers are forced to allocate, and often prioritize, wellness resources among employees and consumers (students), which is not a challenge facing employers in business and industry settings. A cue to action in response to this barrier includes having faculty/staff gym time or classes specifically tailored for faculty and staff. Similar to findings from other studies (Hill-Mey et al., 2013; Terrell, 2015) another cue to action recommended for the time barrier included wellness release time or flex-time. Flex-time allows employees to take work time for wellness, such as exercise or other approved wellness-supporting activities. Rinaldi-Miles and Das (2016) found employee confusion regarding the flex-time policy. One participant mentioned that “It’s not even clear who this applies to, because I have been told I must be here for this hour to this hour” (p. 710). This is similar to other studies in which participants felt they were not allowed to leave their desk to participate in wellness programs (Terrell, 2015). In a study by Terrell (2015), participants recommended that wellness programming should “formulate better guidelines on how offices that have multiple people who want to participate in the programs can do so and still maintain office coverage” (p. 37). Another institution group in Rinaldi-Miles and Das (2016) did not mention a formal wellness release policy, but they did mention that support for physical activity

depends on which department an employee works for. One participant commented, “You are lucky because you work in a department that encourages this, but not all departments are like that. You can take an extra 10-15 minutes at lunch but I can’t. I have to be back when the office re-opens after lunch” (Rinaldi-Miles & Das, 2016, p. 710). Even when opportunities for physical activity were available to faculty and staff, they felt they should not partake in them out of fear of disapproval from supervisors (Rinaldi-Miles & Das, 2016). One participant commented, “I have seen many departments that are like, ‘wait, you are going to take time to do that [engage in PA]?’ and be like, no, we need someone to cover the office” (Rinaldi-Miles & Das, 2016, p. 711). Another participant stated that campus leaders must, “...remove the stigma of using the wellness time. I have heard that in some departments...that taking the hour and a half a week is frowned upon, even though the supervisor may approve it, it is not really welcomed” (Rinaldi-Miles & Das, 2016, p. 711). This quiet disapproval of wellness release time also exists among colleagues, which may be an indication of a poor health climate. Another participant explained, “A couple girls in the department I work in, walk at the rec [center] over lunch and take the additional 15 minutes each day of wellness release time. My problem is that when they come back to their desks and eat their lunch [sic]. How productive are they being when they are back?” (Rinaldi-Miles & Das, 2016, p. 711). Resulting cues to action for this lack of felt support from colleagues included a leadership driven and accepted wellness program, policy communication, awareness, and/or visibility.

In summary, the Rinaldi-Miles and Das (2016) study was rich in employee perception of HWP support. The study conveys a common barrier among all institutions: a perceived lack of support from superiors and administration. However, this particular study evaluated only three institutions (two in the Midwest and one in the Southern regions of the country); therefore, there

is a need to examine whether similar wellness program attitudes and barriers exist within other institutions of higher education, particularly CCs.

Hoert et al. (2018) explored the relationship between leadership support for health promotion and job stress, wellness program participation, and health behaviors. Their sample included three industries: educational services, finance and insurance, and wholesale or retail trade. Employees from a public and a private university comprised the sample for the educational services industry. The authors slightly adapted the LBE to use as a part of a larger survey administered to the employees. The authors noted several significant findings, including: (a) a statistically significant positive relationship between employees' perceptions of leadership support for health promotion and wellness program participation; (b) a statistically significantly negative relationship between employee perceptions of leadership support for health promotion and reported job stress; (c) a statistically significantly positive relationship between employee perceptions of leadership support for health promotion and reported health behaviors; (d) statistically significant predictors of health behaviors included employee perception of leadership support for health promotion, wellness participation, and job stress, and (e) leadership support for health promotion was not a statistically significant predictor for health behaviors for the two smaller organizations with less developed wellness programs.

Overall, Hoert et al. (2018) demonstrated that employee perceptions of organizational leadership support for health promotion were associated with positive employee health behaviors and outcomes. Employees who perceive higher levels of leadership support for health promotion also reported higher levels of program participation, lower levels of job stress, and higher levels of positive health behaviors (Hoert et al., 2018). Additionally, leadership support for health promotion may have less influence on health behaviors in smaller organizations or organizations

with less developed health promotion programs. Therefore, there is a gap in the literature where CC education systems, with varying wellness programs and multiple campuses within a larger district, can be explored.

Support Across Leadership Levels

Many work organizations are their own “ecosystem” (Rinaldi-Miles & Das, 2016, p. 711); therefore, to promote health behavior change, the social and established environments (e.g., policies, culture, etc.) must also change (Golaszewski et al., 2003). HWP understanding and commitment among supervisors at all levels is essential to create and foster a supportive culture and environment for successful worksite health promotion (Makrides et al., 2007). Similarly, the American College of Sports Medicine (ACSM) asserted that garnering leadership support throughout an organization is a best practice approach for successful health promotion (ACSM, 2013). The authors in literature appears to agree.

Organizational culture is the “shared understanding of the values and beliefs in an organization that shape the guidelines and rules for behavior (norms)” (Virgin Pulse, 2016, p. 9). Organizational culture is not a policy but rather the unspoken, identifiable values and expectations that a workplace subconsciously or consciously creates. For example, if the leader or manager of an organization designates time for personal wellness, such as exercise, employees tend to feel less chagrin about taking their own time to exercise (Berry et al., 2010). When an organization’s leaders value work-life balance, it is important for leaders across levels to model those values to their subordinates and employees (Virgin Pulse, 2016). Research findings have demonstrated that interactive involvement of the CEO, president, and other executive management personnel is essential to creating a culture of health in large organizations (Goetzel et al., 2001) and small businesses (Merrill et al., 2011). While senior leadership support for

employee wellness is vital, the support of multiple levels of management below senior leadership can all contribute to embedding health and well-being into the workplace culture (Virgin Pulse, 2016).

Berry et al. (2010) identified six pillars of wellness programming that are essential to successful and sustainable incorporation into workplaces: (a) multilevel leadership, (b) alignment, (c) scope, relevance, and quality, (d) accessibility, (e) partnerships, and (f) communications. The first pillar multilevel leadership refers to leadership support of wellness programming at various levels, including upper and middle management. Having this type of leadership support is identified as best practice for wellness programming in business and industry, which has been translated to the college setting (CDC, 2019b; Hill-Mey et al., 2015; WELCOA, 2020).

Researchers, in general, have highlighted the profound effect the direct supervisor can have on their subordinates (Ball, 2009; Dejoy et al., 2009; Hill & Korolkova, 2014; Kleim & Takeda-Tinker, 2019; Linnan et al., 2017; Rinaldi-Miles & Das, 2016; Rose et al., 2017). Kleim and Takeda-Tinker (2009) investigated the impact of leadership practices on CC faculty job satisfaction. The results confirmed a strong relationship between faculty job satisfaction with the supervision and leadership techniques of the direct supervisor. In a study designed to determine the perceived barriers and incentives for participating in a university employee wellness program, Ball (2009) found a possible link to levels of leadership and participation in HWP. The active participants in the HWP were significantly less likely than non-participants to report current support of their supervisor as a barrier to participation (OR, .4; CI 95% [0.2-0.9]). This was the only statistically significant difference between the two groups. The study participants' employer allowed the policy of paid time off work to exercise at the discretion of the direct

supervisor. The majority of the supervisors deny this discretionary policy. Study implications included informing supervisors of the benefits of an HWP and including direct supervisors in the planning and development of wellness services and policies (Ball, 2009). Such actions may help promote supervisor buy-in for the program's success and decrease perceived wellness participation barriers among employees.

Other researchers have also suggested that supervisor support of HWP is a vital factor for successful health promotion programs (Dejoy et al., 2009; Hill & Korolkova, 2014; Linnan et al., 2017; Rinaldi-Miles & Das, 2016; Rose et al., 2017). Dejoy et al. (2012) used management engagement (support) as one of the additional interventions of the intense worksite conditions. Management engagement involved providing managers with “specific knowledge, motivation, and behavioral options that can be used to produce desired environmental and/or behavioral changes in the work setting” (p. 415). The authors suggest that future intervention studies focus on providing suitable training to different levels of managers, such as middle managers and site leaders, on what they can do to positively impact health behaviors within the worksite (Dejoy et al., 2012).

While earlier research findings have suggested that leadership support plays an integral role in the success of an HWP, one study examined managerial HWP beliefs. Linnan et al. (2007) investigated differences in management beliefs about worksite health promotion programs based on age, experience in working with a company that offered health promotion programs, and management level (senior managers, middle managers, and line supervisors). Researchers surveyed managers at 24 manufacturing worksites with a 66% response rate. Despite their level of management, most managers (75%) strongly believed in the importance of offering worksite health promotion and protection programs. In addition, “most respondents

agreed that adults will change a health behavior if they are supported to do so by the people they spend time with and that changes are more likely when supportive policies are in place” (Linnan et al., 2007, p. 523). However, markedly fewer managers (41%) agreed that employers have a responsibility to encourage employees to make healthy lifestyle choices. Senior and middle managers were more likely than line supervisors to agree with this statement. Worksite leadership may need to be more informed about the benefits and promotion of worksite health initiatives (Ball, 2010; Dejoy et al., 2012). In the Linnan et al. (2007) study, 34% of managers felt that information alone would suffice to promote worksite health programming. Managers were also asked about benefits from offering an employee wellness program. The overall top three benefits included improved employee health (80%), reduced health care costs (68%), and improved employee morale (67%). When controlling for the variables of manager experience and age, senior managers were more likely than line supervisors to believe that offering employee wellness programs can help control company health care costs. According to the managers surveyed by Linnan et al. (2007), the barriers to delivering an employee wellness program included lack of employee time to participate (56%), lack of staff time (54%), production conflicts (41%), and cost of offering the programs (38%). Senior managers (versus line managers) were less likely to believe that cost, production conflicts, or space considerations presented barriers to HWP participation. Middle managers (versus senior managers) were more likely to perceive cost, lack of management interest, and production conflicts as barriers. Middle managers and line supervisors were similar in their beliefs about barriers with one exception: middle managers perceived lack of staff time as a barrier to offering employee wellness programs more than line supervisors (Linnan et al., 2007).

In addition, differences in manager levels appear to parallel job roles. For instance, Linnan et al. (2007) reported that more senior managers than line managers held the view that offering employee wellness programs can help reduce company health care costs. This perspective may be attributed to the fact that line managers are not as focused on the health care costs (and other fiscal complexities) of the company as senior leadership. The middle managers were more likely than senior managers to view a lack of management interest and cost as barriers to providing an employee wellness program. The authors posited that senior managers may not want to acknowledge themselves as a barrier to the program, as middle managers work closer to the “realities of getting work done and of attempting to promote health” (Linnan et al., 2007, p. 526). This same idea applies to the line supervisors, who are focused more on productivity targets. Line supervisors were more likely than senior managers to identify production conflicts as a barrier to offering employee wellness programs. Senior managers viewed cost and space as their primary barriers to HWP participation when compared to middle and line supervisors. Given the results of their study, the authors proposed identifying and addressing the beliefs of all the different levels of managers within an organization when planning a comprehensive worksite health promotion program.

Leaders in higher education can also play an important role in promoting health as expressed in the following excerpt about the University of Alabama’s commitment to employee wellness:

The success of any program is largely dependent on the organization’s commitment to the overall health management program and its goals. Although different constituents may have varying goals and reasons for supporting the overall wellness program, the support must be strong and widespread. The primary goal of Alabama’s health

promotion and wellness program is to improve the health and well-being of employees. The University's President is interested in the level of engagement and enrichment for faculty, staff, and family members. The Vice President of Financial Affairs is interested in lowering overall health care costs and increasing employee productivity. The Human Resources department is often interested in the quality of the workforce and the market value associated with creating a culture of health. Operation level managers are often most concerned with the quality and productivity of their teams. (Hill & Korolkova, 2014, p. 20)

Research findings have demonstrated a need to further explore the support, and levels of support, for employee wellness programming. Linnan et al. (2017), in particular, found differences in managerial support for employee wellness programming within manufacturing/distribution worksites. The current study will explore potential differences in leadership support for employee wellness programming within an educational worksite.

Employment Role in Worksite Wellness Programs

Research examining the relationship between employment role and wellness programming in CC is sparse in the literature. However, the limited literature suggests that there is an interest in employee wellness programming at universities, regardless of employee role (Tapps et al., 2016). There are also differences in participation rates among the employment roles (Rinaldi-Miles & Das, 2016) and differences in wellness interests and needs among the employee roles (Tapps et al., 2016).

In a study of perceived barriers to participation in HWPs, Terrell (2015) investigated employees' perceived barriers to participation in the HWP at a private Midwestern university and found differences among employee classifications of administration, faculty, staff, and other

(such as Barnes & Noble campus bookstore employees). Participants responded to a 31-question survey based on multiple levels of influence within the social-ecological model. Specifically, the survey assessed employees' perceptions of intrapersonal barriers, interpersonal barriers, and institutional barriers regarding employee participation in a worksite wellness program. Most of the employment role disparities were revealed in responses relating to technology, fitness facilities, and at the institutional level barriers, such as opinions regarding who should serve on the wellness teams, and for flex-time and paid time off. Administrative differences stemmed from policy-related questions. For example, 93% of administrators, compared to 65% of staff and 62% of faculty, believed that a human resources representative should serve on the wellness team ($F = 2.418, p \leq .067$). There was also a statistically significant effect based on employee classification regarding whether the university leadership provided training to supervisors and managers on the importance of employee health ($F = 2.854, p \leq .038$). No administrative employees agreed, as they are much closer to the internal developments of the institution.

Faculty differences were derived from perceptions of support and their use of work time for exercise. When asked if they felt that the university's goals and plans advocated for the improvement of employee health, approximately 46% of administration and 43% of staff agreed compared to 37% of the faculty ($F = 5.499, p \leq .001$). There was a trend toward statistical significance in employee classification with the statement "my colleagues and work teams provide support for my participation in on-campus worksite health promotion programs" ($F = 2.578, p \leq .054$), with more administration (66%) and staff (55%) compared to faculty (34%) agreeing. In other words, 13% of administration, 12.5% of staff, and 18.5% of faculty felt they did not have colleague support for participation in wellness programming. Similarly, regarding support from supervisors for participation in wellness programming, 73% of administration and

approximately 60% of staff felt supported, while faculty (32.9%) felt less supported ($F = 6.103$, $p \leq .001$). Other research in the business setting suggests that management support is an important predictor of employee participation for particular subgroups of workers such as blue-collar workers, but less important for other subgroups, such as white-collar workers (Crump et al., 1996). Lastly, there was a statistically significant employment role effect regarding the statement of whether the university leadership viewed employee health as one important indicator of the university's business success ($F = 5.874$, $p \leq .001$). Approximately 28% of faculty did not feel that leadership viewed employee health as an indicator of the worksite's business success compared to 14% of staff and 13% of administration. There was also a statistically significant effect by employee classification to policy statements about participation in wellness programs if given flex-time ($F = 2.801$, $p \leq .041$) and paid time off ($F = 4.187$, $p \leq .007$). When evaluated by employment role, 80% of administrators, 78% staff, and 63% of faculty felt that they would participate if given flex-time, while 79% of administration, 76% of staff, and 54% of faculty felt they would participate if given paid time off. The authors suggested that this disparity could have been due to the work schedule associated with each employment role. Administration and staff tend to have a set 9 hour per day schedule, whereas faculty tend to have more flexible working hours. Blue-collar workers have an even less flexible schedule, which can create a barrier to participation among the classes (Bungum et al., 1997). Therefore, blue-collar workers may not participate or will drop-out of wellness programming if the programming is not at convenient times for them; flex-time can be a valuable solution for this particular employment role category. Other researchers agree and suggest that specific subgroups of workers, such as blue-collar, low-income workers, or underrepresented ethnic or racial groups, have less access to health promotion programs (Basas, 2014; Bondi et al.,

2006; Kellar-Guenther, 2016; Linnan et al., 2007). Ironically, these subgroups tend to be the ones who could most benefit from wellness programming. Ball (2009) found that the more education (and typically higher-paying employment roles) employees reported, the more they reported already being involved in wellness programs and activities. In addition, Basas (2014) contended that wellness programs may deepen a division between healthy employees and those with disabilities or other underrepresented groups. These underrepresented groups of individuals have limited access to wellness and safety resources and may continue to struggle as the “healthiest of workers receive the best benefits and privileges” (Basas, 2014, p. 1037).

Regarding the staff in the Terrell (2015) study, it appears that most of their differences from faculty and administration stem from their assumptions about leadership. In the statement “worksites objectives for health improvement are set manually,” 53% of administration, 33% of faculty and 18% of staff respondents disagreed ($F = 3.942, p \leq .009$; Terrell, 2015, p. 35). Thus, the majority of staff believed that the university goals and plans advocated for the improvement of employee health. The author attributed this disparity to the idea that staff may be further removed from the university’s leadership than faculty. Administrative employees may have a more thorough understanding of the university’s annual goals and whether those goals included employee health improvement objectives. There was also a statistically significant variance based on employee classification in response to the statement “employees at all levels are educated about the true cost of healthcare and its effects on university business outcomes” ($F = 7.785, p \leq .0001$), with administration (47%) and faculty (48%) more likely to disagree when compared to staff (33%). Employees were asked to determine if “employees at all levels were educated about the impact of a healthy workforce can have on employee productivity and cost management” (Terrell, 2015, p. 35). Significant variance by employee classification indicated

that administration (13%) and faculty (16%) agreed compared to staff (42.5%; $F = 8.829, p \leq .0001$). Over 45% of administration and faculty disagreed compared to 24% of staff. When determining whether leadership shared health and business success information with employees, a higher percentage of faculty (48.9%) and administration (47%) disagreed compared to staff (24%; $F = 7.746, p \leq .0001$).

In summary, this current study is intended to begin filling the literature gap regarding wellness programming differences among different employment roles in a higher education setting. The limited literature suggests that although HWPs are of interest to employees in higher education, differences regarding those interests and HWP participation exist with respect to employment role. Therefore, it is important to determine how worksite wellness programming is perceived by and affects employees with different employment roles.

CHAPTER III

METHODOLOGY

This chapter outlines the study methods that were used to answer the research questions and test the hypotheses. This chapter includes a description of the population and sample of interest, an explanation of the protection of the research participants, a description of the instrument, and procedures used for data collection and data analysis.

Population and Sample

The sample for this study included all employees, full- or part-time, aged 18 years and older within a CC system in Tarrant County, North Texas. This college system is the third largest among Texas colleges and universities (CollegeStats, 2019) and is one of the top 20 largest higher education institutions in the nation (Tarrant County College District [TCCD], 2019). Approximately one in every 22 Tarrant County residents takes a class through the CC each year (TCCD, 2019). There are approximately 3,645 staff members and approximately 756 faculty employed by the district (National Center for Education Statistics, 2018). The District facilities include five brick and mortar main campuses, four additional independent buildings, and a virtual campus for online instruction. Virtual campus employees have office and meeting space at one of the main campuses.

Protection of Human Participants

The use of primary data for this study required research protocol application and dual approval from the researcher's Institutional Review Board (IRB; Texas Woman's University) and the participants' IRB (Tarrant County College). Both were approved.

Sampling and Data Collection Procedures

This study was exploratory, as no prior research had been conducted using the specific variables and setting of the current study. The researcher used PsychData, a web-based and IRB-compatible survey tool, to design and deliver an electronic survey to collect primary data from the CC employees (PsychData, 2019). Dillman et al. (2014) recommended tailoring the mode of data collection to the population and this researcher adhered to that recommendation. Because each employee within the population had an institutional email address and because the system was closed to in-person activity due to the COVID-19 pandemic, the primary mode for this study was an online survey distributed via email. All CC system employees' emails are accessible to the public through a system-wide directory. To initiate the data collection process, the primary researcher copied and pasted every email address into individual emails to each employee listed in the directory during the Spring 2020 semester. The email provided an explanation of the study, a notation that participating in the survey was optional, appreciation for their participation, and a link to the survey with implied consent. The specific email message content is located in Appendix A. Dillman et al. (2014) reported increases in response rates to questionnaires each time the participants were contacted. Therefore, the researcher sent two emails to the potential participants of the study within a 2-week timeframe in April 2020. The first was the initial email as described above; and the second email was sent a week later as a friendly reminder to complete the survey. The second email, located in Appendix B, included a different opening but the same survey information and survey link as in the first email. Sufficient data were collected within the 2-week timeframe. A total of 4,017 emails were sent to the institution's employees, and there was a total of 625 completed surveys, yielding a 16% response rate. There was an opportunity for participants to win one of three \$50 Amazon gift cards by optionally entering

their contact information at the end of the survey. After data collection, the researcher randomly drew names to determine the gift card winners.

Instrumentation

Pretesting

Prior to survey distribution, the researcher conducted two rounds of pretesting. For the first round of pretesting, the researcher received feedback regarding the survey from eight experts, including five university professors in the public health field, two human resources employees of the CC to be surveyed, and a wellness coordinator employed at a different CC. There were two authors from articles that previously utilized the LBE that were contacted for their expert opinion of the survey, but they did not respond. There were minimal changes recommended by the experts. One change included the order of the demographic questions, a second change included the omission of a sexual orientation question, and a third change included the use of government-framed questions for three of the demographic questions. All recommendations were applied.

For the second round of pretesting, the researcher pretested the survey with five individuals representative of the different employment roles within a CC setting, including a human resources workforce analyst, a police captain, an advisor, a wellness coordinator, and an organization development trainer/coach. The pretest helped the researcher determine the average time required to complete the survey. Furthermore, pretesting helped the researcher determine face validity of the survey to align with the study purpose. During this round of pretesting, the researcher conducted a brief cognitive interview with each respondent to ask for feedback about the survey's readability, their understanding of the questions, and the layout and flow of the online survey (Drennan, 2002). The feedback gathered from the respondents indicated that the

survey was easy to understand and navigate, respondents were able to distinguish the question matrix for the different levels of leadership, and that the survey took 15 to 20 minutes to complete. Since the individuals involved in the pretesting of the instrument were scrutinizing the survey for possible errors and readability concerns, and because they answered follow-up questions, the final survey time was deemed to take approximately 10 minutes to complete. Following the pretest, the researcher finalized and published the survey instrument through PsychData. The combined 41 questions (as described in the following section) comprised the study instrument entitled The Employee Health and Wellness Survey (see Appendix C).

Measures

The survey included five sections to assess the research questions: (a) demographics (11 items), (b) perceptions of leadership support (5 items), (c) awareness of HWP (13 items), (d) usage of HWP (12 items), and (e) an opportunity for employees to express any thoughts, opinion, or ideas regarding the survey or survey topic.

Demographics Questions

The demographics section of the survey included questions pertaining to the specific campus where the employee worked, work status (part-time or full-time), employment role, years worked with the college, age, sex, marital status, children, education, and race and ethnicity.

Dependent Variable: Perceptions of Leadership Support

To assess employee perceptions of leadership support for workplace wellness and health promotion, the survey instrument incorporated four slightly modified questions from the original LBE instrument (Della et al., 2008) and one additional question from a later version of the LBE (Hoert et al., 2018). The LBE instrument was initially developed from the “Leading by

Example” checklist created by the Partnership for Prevention (2001). A study funded by the NHLBI validated the LBE instrument to assess workplace support for wellness and health promotion among a sample of employees of a private corporation with different worksites (Della et al., 2008). The final version of the original LBE instrument contained 17 items that ask participants to rate their response to each question using a five-point Likert scale (*1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree*). There are four subscale measures within the original LBE instrument: (a) business alignment with health promotion objectives ($\alpha = .80$), (b) awareness of link between health and worker productivity ($\alpha = .72$), (c) worksite support for health promotion ($\alpha = .65$), and (d) leadership support for health promotion ($\alpha = .76$) (Della et al., 2010). The current study utilized four of the five questions from the leadership support for health promotion subscale.

Hoert et al. (2018) slightly modified the LBE instrument questions to tailor them to their study participants. Similar to Hoert et al. (2018), the current researcher slightly modified a total of five of the LBE items to align with the study purpose. Specifically, the current researcher edited each question from the leadership support for health promotion subscale to begin with “this leader.” This modification was made so that participants could answer each question for the three levels of leadership (district administration, campus administration, and direct supervisor). One of the five questions was modified slightly more than the others, as it would be difficult for participants to know if a particular leader received training on the importance of employee health. Therefore, the fifth question was reworded from “Dow provides our site leadership training on the importance of employee health” to “this leader understands the importance of employee health.” In alignment with Hoert et al. (2018), the primary researcher conducted a Cronbach’s alpha to test internal scale consistency of the revised leadership support

subscale, as this is the first time the revised subscale was administered to a CC sample. The Cronbach's alpha score for the leadership support scale in the current study was $\alpha = .97$.

Other studies have utilized the LBE instrument to assess either leadership support or employee perception of leadership support for workplace wellness and health promotion (Dejoy et al., 2009; Della et al., 2010; Hoert et al., 2018; Milner et al., 2013; Terrell, 2015; Wilson et al., 2007). Of the studies that have utilized the LBE instrument, only two have included the higher education setting. One study included participants from a private university (Terrell, 2015), and one included a portion of participants from a public and private university (Hoert et al., 2018). Moreover, the current study was the first to utilize the LBE tool for CC participants. In addition, the LBE instrument had not been used to measure perceived support for health and wellness promotion among different levels of leadership. Therefore, with permission from both Della et al. (2008) and Hoert et al. (2018), five questions were extracted from the LBE instrument and slightly adjusted so that the participants could answer each question as it pertained to each leadership level. The original LBE items and additional LBE items are included in Appendix D (Della et al., 2008; Hoert et al., 2018). Permission statements from Della and Hoert are located in Appendix E.

Employees' Awareness and Usage of Health and Wellness Benefits and Programs

Additional questions pertaining to employees' awareness (13 items) and usage (12 items) of health and wellness benefits and programs were included in the final survey instrument. The researcher developed the questions pertaining to employees' awareness and usage of specific wellness benefits and programs based on actual benefits and programs available to all employees within the CC system at the time of survey dissemination and data collection. The accuracy of the awareness and usage questions were confirmed by two of the CC human resource generalists

during the pretesting phase of the study.

Survey Instrument Conclusion

The survey concluded with a section for participants to provide optional, qualitative feedback for programmatic and future survey improvements. Following this section there were instructions for employees who elected to participate in three random drawings for an Amazon gift card. Participants were directed to click on a separate link at the bottom of the survey if they wished to enter their contact information to enter the drawing. The separate link allowed participants to enter into the drawing without their survey being tied to the contact information they provided. There were 162 participants who entered their contact information for the prize drawings.

Data Analysis

To acquire a sufficient sample size in order to detect an effect, *a priori* power analysis was performed using G*Power version 3.1.9 prior to survey dissemination (Faul et al., 2009). A desired level of power of .80, an α -level at .05, and a moderate effect size of .30 were set to increase the validity of the analysis results. The G*Power analysis results displayed a required sample size of 84. The researcher's goal was to have at least 150 fully completed total surveys, including at least 30 from each of the campuses. The rationale for the larger intended sample size was to have a fairly even distribution of responses from each of the CC system's five different main campuses.

There were 625 participant submitted surveys. The researcher removed three cases for extremely short response times and removed one duplicate case. A total of 621 completed survey responses comprised the analytic sample and were utilized for data analysis. The primary data collected through the PsychData survey were transferred to the Statistical Package for

Social Sciences (SPSS) version 25 statistical software for Windows (IBM Corp., 2015). The researcher saved and secured the SPSS data on a privately-owned, password-protected personal computer. For further security measures, only the researcher and research analysis advisor held the password to the PsychData account, and data files were encrypted. The researcher utilized descriptive statistics, correlation analysis, and Analysis of Variance (ANOVA) to answer the research questions.

For Research Question 1, three Pearson's product-moment correlations (Pearson's r) were conducted to assess the relationships between: (1) employees' perceptions of leadership support (independent variable) and employees' usage of HWP (dependent variable), (2) employees' perceptions of leadership support for HWP (independent variable) and employees' awareness of HWP (dependent variable), and (3) employees' awareness of HWP (independent variable) and employees usage of HWP (dependent variable).

Research Questions 2, 3, and 4 were answered by utilizing the ANOVAs. A one-way ANOVA was used to answer Research Question 2 by determining if perceived leadership support (dependent variable) differed among the three levels of leadership (independent variable). A Tukey-Kramer post hoc test was conducted to determine which levels of leadership were statistically significantly different from the others based on perceived leadership support scores. Three separate one-way ANOVAs were used to answer Research Question 3 by determining if awareness of HWP (dependent variable), usage of HWP (dependent variable), and perceived leadership support of HWP (dependent variable) independently differed among the personnel across the five physical college campuses (independent variable). A Tukey-Kramer post hoc test was conducted to determine which of the five campuses significantly differed from the others based on awareness, usage, and perceived leadership support scores. Lastly, separate

one-way ANOVAs were used to answer Research Question 4 by determining if awareness of HWP (dependent variable), usage of HWP (dependent variable), and perceived leadership support (dependent variable) each independently differed among employment roles (independent variables). The original employment role options for participants to choose from in the survey included: faculty, support staff, administration, building services, custodian, health services, and other. The participation for the categories of building services, custodian, health services, and other were too low to be included as individual employment role categories. Therefore, the present researcher collapsed the building services, custodian, and health services participants into the staff category. In addition, if the participants marked other and/or included notes describing their job position, the researcher evaluated and appropriately recategorized the participants. Examples of participants' employment role notes that were recoded to staff include "facilities operations," "professional staff," "facilities interior design," "police," "legal services," "graphics" or "graphic services," "instructional assistant," "information technology," "coordinator," "advisor," "counseling," "printing specialist," "grant: small business development," "finance," or "children's center teacher." If a participant's employment role note included "adjunct," they were recoded as "faculty." There were no participant employment role notes that were recoded to administration. A Tukey-Kramer post hoc analysis was conducted at a significance level of .05 to determine which group means for employment role were statistically different from the other group means on the basis of awareness, usage, and perceived leadership support, each in separate analyses.

Summary

The researcher asked the employees of a North Texas CC system to complete an employee wellness survey distributed via PsychData. Quantitative data analysis was used to assess employee awareness, usage, and perceptions of leadership support for wellness programming. Further analyses assessed potential differences in employee perceptions of leadership support among three different levels of leadership, and potential differences in awareness, usage, and perception of leadership support among employee campus affiliation and employment role. Data were analyzed using descriptive statistics for demographic data. Correlation analysis was used to analyze potential relationships between awareness, usage, and perceived support for wellness programming. An ANOVA was conducted to analyze potential mean differences between employee perceptions of leadership support for wellness programming and three levels of leadership. Multiple ANOVAs were also conducted to analyze mean differences between employee awareness, usage, and perception of leadership support for wellness programming and campus affiliation, as well as employment role.

CHAPTER IV

RESULTS

The purpose of this study was two-fold: (a) to examine CC employees' awareness, usage, and perceptions of leadership support for HWP; and (b) to explore potential differences across leadership levels, employment role, and campuses.

Final Sample and Descriptive Statistics

During the Spring 2020 academic semester, employees of a North Texas CC were surveyed. Approximately 4,017 emailed surveys were disseminated, and 625 were completed, yielding a 16% response rate. Frequencies and percentages for categorical variables are displayed in Table 1. The majority of the participants were female ($n = 395$, 63.6%), white or Caucasian ($n = 490$, 80.5%), married ($n = 417$, 67.1%), and had a master's degree ($n = 332$, 53.5%). The mean age of the participants was 49.73 years ($SD = 12.92$ years), and the age range of the participants of the survey spanned from 20 to 84 years old. In terms of their employment at the CC, the majority of the participants worked full-time (71.5%) and were faculty (51.9%) at the time of survey completion. There was a fairly even distribution of responses among the six physical campus options, with the majority coming from the Northwest campus (23.8%).

Table 1*Frequencies and Percentages for Participant Characteristics*

<i>Characteristics</i>	<i>n</i>	<i>%</i>
Primary Campus		
Northeast	112	18.0
Northwest	148	23.8
Southeast	76	12.2
South	89	14.3
Trinity River	119	19.2
Other	77	12.4
Work		
Part-Time	177	28.5
Full-Time	444	71.5
Employment Role		
Faculty	321	51.9
Staff	231	37.3
Administration	67	10.8
Sex		
Male	222	35.7
Female	395	63.6
Marital Status		
Married	417	67.1
Single	108	17.4
Divorced	58	9.3
Widowed	17	2.7
Do not wish to Respond	6	1.0
Other	15	2.4
Highest Level of Education Completed		
High School Diploma	7	1.1
Some College	85	13.7
Bachelor's Degree	121	19.5
Master's Degree	332	53.5
Doctorate	76	12.2
Racial Identity		
White or Caucasian	490	80.5
Black or African American	82	13.5
Asian	19	3.1
American Indian or Alaska Native	5	0.8
Native Hawaiian or Other Pacific Islander	2	0.3
Other	11	1.8
Hispanic/Latino		
Mexican	60	80.0
Puerto Rican	2	2.7
Cuban	2	2.7
Multiple	1	1.3

Testing of Hypotheses

This study included and tested 10 null hypotheses. Table 2 provides a summary of the hypothesis testing and the conclusions.

Table 2

Summary of Hypothesis Testing for Ho

Specific Test	Conclusion
Ho 1:	
No relationship between awareness and usage	Reject
No relationship between awareness and PLS	Reject
No relationship between usage and PLS	Fail to Reject
Ho 2:	
No difference between PLS for HWP across three levels of leadership	Reject
Ho 3:	
No difference between CC employee awareness across multiple campuses	Fail to Reject
No difference between CC employee usage across multiple campuses	Fail to Reject
No difference between CC employee PLS across multiple campuses	Reject
Ho 4:	
No differences between CC employee awareness across employment roles	Reject
No difference between CC employee usage across employment roles	Reject
No difference between CC PLS across employment roles	Fail to Reject
<i>Note:</i> Perceived Leadership Support (PLS)	

Hypothesis 1: Analysis and Discussion

Ho 1: There will be no statistically significant relationship between CC employee awareness, usage, and perceptions of leadership support for health and wellness benefits and programs.

Two out of three possible relationships for Research Question 1 were found to be statistically significant. Since there was a moderate relationship between CC employee

awareness and usage of HWP, the null hypothesis was rejected. Although weak, there was a positive relationship between CC employee awareness of HWP and perceptions of leadership support. Therefore, the null hypothesis was also rejected. Lastly, since there was no statistically significant relationship between CC employee usage of HWP and perceived leadership support, there was insufficient evidence to reject the null hypothesis.

The scale to measure usage of HWP in the study survey consisted of a 3-point Likert scale: 1 = *never used*; 2 = *used in the past*; 3 = *use currently*; and 4 = *n/a*. During the study analysis, the usage variable responses were collapsed and dichotomized so that there would be two responses: 0 = *never used*; 1 = *used in the past/use currently* together. The responses labeled 4, or *n/a*, were coded as *missing*. The purpose of this was alteration to capture a more accurate depiction of HWP usage, since *use currently* did not necessarily reflect a greater usage than *used in the past*. Therefore, a simple dichotomous variable, *use* or *do not use*, adequately captured use without losing data. As shown in Table 3, results indicated that there was a moderate positive correlation between CC employee awareness and usage ($r = 0.62, p < .01$), a weak positive correlation between CC employee awareness and perceptions of leadership support ($r = 0.18, p < .01$), and no statistically significant association between CC employee usage and perceptions of leadership support ($r = 0.04, p = 0.34$).

Table 3*Pearson's Product-Moment Correlations between Variables Awareness, Usage, and Support*

Descriptive Variable	Awareness		Usage	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Awareness				
Usage	.62*	< .01		
Support	.18*	< .01	.04	.34

Note. Items with asterisk (*) were statistically significant, $p < .01$.

Hypothesis 2: Analysis and Discussion

Ho 2: There will be no statistically significant difference in CC employee perceptions of leadership support for HWP across three levels of leadership.

The null hypothesis was rejected since there were significant employee perceptual differences in support among each level of leadership was observed.

A one-way ANOVA was conducted to determine if CC employee perceptions of leadership support for HWP differed across three levels of leadership: 1) district administration, 2) campus administration, and 3) direct supervisor. Participants measured their perception of leadership support for HWP with a 5-point Likert scale: 1 = *strongly disagree*; 2 = *disagree*; 3 = *neutral*; 4 = *agree*; and 5 = *strongly agree*. ANOVA results indicated that employee perceptions of leadership support for HWP did differ significantly across levels of leadership $F(2, 1860) = 57.84, p < .001, \eta^2 = 0.06$. As shown in Table 4, Tukey's post hoc analyses revealed that employees' perception of leadership support differed significantly on every level of leadership. Descriptive statistics indicated that employees felt most supported by their direct supervisor ($M = 3.94$), followed by their campus administration ($M = 3.59$), followed by their district administration ($M = 3.31$).

Table 4*Means and Standard Deviations for Perceptions of Support by Level of Leadership*

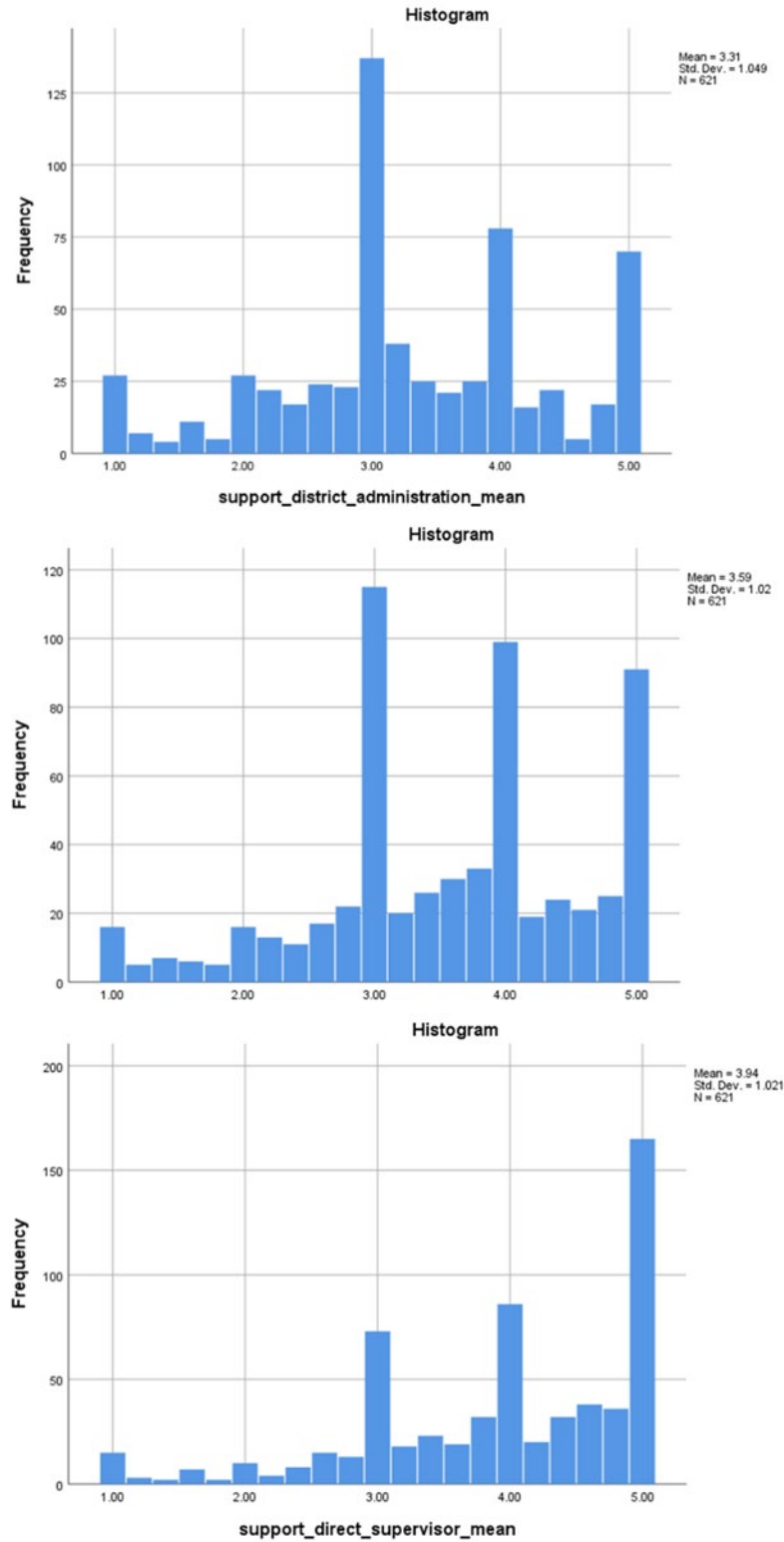
Level of Leadership	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>	η^2
			57.84	<.001	.06
District Administration	3.31 ^a	1.05			
Campus Administration	3.59 ^b	1.02			
Direct Supervisor	3.94 ^c	1.02			

Note. Means with different superscripts differ significantly. Each participant responded for each level of leadership. The mean difference is significant at the .05 level.

Figure 2 below displays the histograms for employees' perceptions of support from their district administration, campus administration, and direct supervisor. There is a fairly even distribution of responses in the district administration histogram with the mean very close to the median ($Mdn = 3.2$). However, for campus administration, the higher median ($Mdn = 3.8$) and more responses weighted toward the right side of the mean, indicated that participants were in more agreement with this leadership level's support for HWP. Lastly, the responses for the direct supervisor swayed even more toward the right of the mean, with an even higher median ($Mdn = 4.0$). This finding suggested that, more than any other level, more participants agreed that their direct supervisor supported HWP.

Figure 2

Comparison of histograms for levels of leadership support for HWP for district administration, campus administration, and direct supervisor.



This study demonstrated that the more closely leadership worked with the employee, the more leadership support for HWP was perceived by the employee. To the knowledge of the researcher, this was the first study that focused on CC employee perceptions of leadership support for HWP across multiple leadership levels. As support differences between each level of leadership existed, the histograms provided an added visual representation of these differences. The participant responses for each leadership level shifted more toward agreement of support with the level of leadership that worked closest with the employee.

Hypothesis 3: Analysis and Discussion

Ho 3: There will be no statistically significant difference in CC employee awareness, usage, and perceptions of leadership support for HWP across multiple campuses.

Since there were no statistically significant differences among the locations of the CC system for employee awareness and usage of HWP, there was insufficient evidence to reject the hypothesis. However, there was a statistically significant difference between employee perceptions of leadership support for HWP at the Southeast and Trinity River locations, thus, the null hypothesis was rejected.

Three one-way ANOVAs were conducted to determine if CC employee awareness, usage, and perceptions of leadership support for HWP differed across multiple campuses. Neither mean employee awareness ($p = 0.51$) nor mean employee usage ($p = 0.30$) differed significantly across campuses. Results indicated that mean perceptions of leadership support differed significantly across campuses $F(5, 615) = 2.86, p = .015, \eta^2 = .023$. Tukey's post hoc analyses, summarized in Table 5, revealed that the Southeast campus ($M = 3.86$) differed significantly from the Trinity River campus ($M = 3.42$) in their perceptions of leadership support for HWP.

Table 5*Means and Standard Deviations for Perceived Leadership Support by Campus*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>	η^2
Campus				2.86	.015	.023
Northeast	112	3.70	.86			
Northwest	148	3.57	.82			
Southeast	76	3.86 ^a	.87			
South	89	3.68	.82			
Trinity River	119	3.42 ^b	.97			
Other	77	3.55	.91			

Note. Means with different superscripts differ significantly, $p < .05$.

Comparison of the different campuses aside, the overall values for the college system for awareness, usage, and leadership support for HWP scores can be useful. Table 6 below shows the overall and per campus HWP usage means/percentages. Overall, only 27% of the CC employees reported using HWP. The Northeast campus had the highest HWP usage percentage at 31%, followed by the Northwest campus at 29%, the Trinity River campus at 28%, and the Southeast campus at 26%. The campus with the lowest HWP usage percentage was the South Campus at 24%. Although not on a specific main campus, employees on “other” college sites, such as independent buildings or centers, reported a usage percentage of 25%.

Table 6

Means and Standard Deviations for HWP Usage by Campus

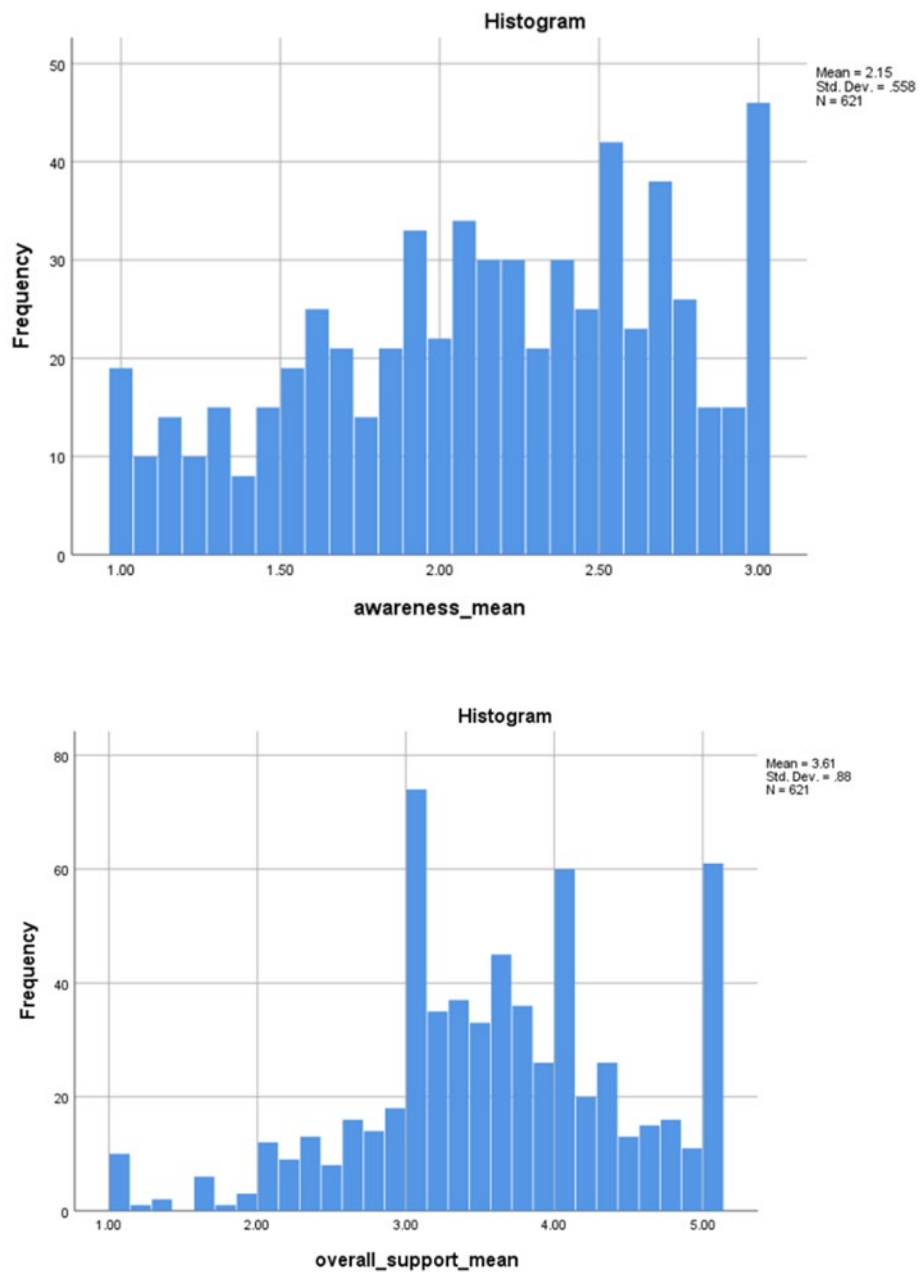
Variable	<i>n</i>	<i>M</i>	<i>SD</i>
Campus			
Northeast	108	0.31	0.27
Northwest	138	0.29	0.24
Southeast	70	0.26	0.23
South	80	0.24	0.21
Trinity River	113	0.28	0.22
Other	74	0.25	0.24
Overall	583	0.27	0.24

Note. Means (*M*) are a percentage of usage of HWP for each campus

Figure 3 displays the histograms for overall awareness ($M = 2.15$) and leadership support for HWP ($M = 3.61$). Employee awareness was scored on a 3-point Likert scale: 1 = *not aware*; 2 = *slightly aware*; and 3 = *aware*. With overall mean ($M = 2.15$) and median ($Mdn = 2.23$) scores close to each other, employees across campuses were generally *slightly aware* of HWP. Leadership support was scored on a 5-point Likert scale with 5 indicating a strong agreement of leadership support for HWP. Overall, the mean support score for HWP ($M = 3.61$) was close to the median score ($Mdn = 3.67$), indicating a fairly even distribution with tendency toward *agreement* with leadership support for HWP.

Figure 3

Comparison of histograms for overall college employee awareness and perceptions of leadership support for HWP.



Hypothesis 4: Analysis and Discussion

Ho 4: There will be no statistically significant difference in CC employee awareness, usage, and perceptions of leadership support for HWP across employment roles.

Since faculty awareness was found to be significantly lower than staff and administration awareness, the null hypothesis for employee awareness is rejected. Since faculty usage was found to be significantly less than staff and administration usage, the null hypothesis for employee usage of HWP was also rejected. Since there were no statistically significant differences found between employment roles for perceptions of leadership support, there was insufficient evidence to reject the null hypothesis.

Three one-way ANOVAs were conducted to determine if CC employee awareness, usage, and perceptions of leadership support differed across employment roles. The original employment role survey options for participants to choose from included: faculty, support staff, administration, building services, custodian, health services, and other. The participation for the categories of building services ($n = 10$), custodian ($n = 1$), health services ($n = 4$), and other ($n = 35$) were too low to be included as individual employment role categories. Therefore, each of these responses were recoded to either faculty, staff, or administration, based off of the participants' notes for job position. This recategorization aligned with the three employment role categories of other research (Leininger et al., 2015; Linnan et al., 2017; Rinaldi-Miles & Das, 2016; Terrell, 2015). The finalized three categories of employment role included: faculty ($n = 321$), staff ($n = 231$), and administration ($n = 67$). Table 7 shows the original and recoded employment role frequencies.

Table 7*Original (N = 621) and Recoded (N = 619) Employment Role Frequencies*

Employment Role	Original		Recoded	
	<i>n</i>	%	<i>n</i>	%
Faculty	316	50.9	321	51.9
Staff	188	30.3	231	37.3
Administration	67	10.8	67	10.8
Building Services	10	1.6		
Custodian	1	0.2		
Health Services	4	0.6		
Other	35	5.6		

Results indicated that awareness of HWP was statistically significantly different across employment roles $F(2, 616) = 47.6, p < .001, \eta^2 = .134$. Tukey's post hoc analyses revealed that faculty awareness ($M = 1.96, SD = 0.58$) differed significantly less from staff awareness ($M = 2.33, SD = 0.47$) and administration awareness ($M = 2.45, SD = 0.35$). Staff and administration awareness of HWP did not differ significantly from one another. Results also indicated that mean usage of HWP differed significantly across employment roles $F(2, 578) = 46.03, p < .001, \eta^2 = .14$. Tukey's post hoc analyses revealed that faculty usage of HWP ($M = 0.19, SD = 0.21$) differed significantly less from staff usage of HWP ($M = 0.35, SD = 0.24$) and administration usage of HWP ($M = 0.40, SD = 0.22$). Staff and administration usage of HWP did not differ significantly from one another. The results of these statistically significant findings are shown in Table 8. Mean perceptions of leadership support for HWP did not differ significantly across employment roles ($p = 0.85$).

Table 8*Means and Standard Deviations for Awareness and Usage of HWP by Employee Role*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>	η^2
Awareness				47.6	<.001	0.13
Faculty	321	1.96 ^a	.58			
Staff	231	2.33 ^b	.47			
Administration	67	2.46 ^b	.35			
Usage				46.03	<.001	0.14
Faculty	294	0.19 ^c	.21			
Staff	222	0.35 ^d	.24			
Administration	65	0.40 ^d	.22			

Note. Means with different superscripts differ significantly, $p < .05$

Summary

This exploratory study's author intended to investigate CC employee awareness of HWP, CC employee usage of HWP, and CC employee perceptions of leadership support for HWP at one CC in the United States. The results indicated that there was a moderate, positive correlation between CC employee awareness and usage of HWP. Results also indicated a weak, positive correlation between CC awareness of HWP and leadership support for HWP. There was no statistically significant association between usage of HWP and perception of leadership support for HWP. In evaluating leadership support for HWP among the three different levels of leadership (district administration, campus administration, and direct supervisor), results indicated that employees' perceptions of leadership support for HWP differed significantly across each level. Within this study, employees perceived more HWP support from their direct supervisor, followed by their campus administration, and then by their district administration.

Statistically significant differences between campuses for overall perceptions of leadership support for HWP were identified between the Southeast Campus and the Trinity River Campus. No statistically significant differences for HWP awareness or usage were found among the different campuses. Lastly, in analyzing variable differences among three employee roles (faculty, staff, administration), results indicated that, within this study, faculty differed from staff and administration in awareness and usage of HWP. There were no statistically significant differences among employee roles for perceptions of leadership support for HWP.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

This chapter will examine study results, particularly as they compare to the research questions and related literature. Additionally, recommendations for college or university leaders and health and wellness programs/personnel will be explored. Lastly, implications for health education specialists, study limitations, recommendations for future research, and study contributions will be discussed.

Conclusions and Recommendations

Research Question 1: Is there a relationship between CC employee usage, awareness, and perceptions of leadership support for HWP?

The results indicated that there was a moderate positive correlation between CC employee awareness and usage of HWP ($r = .62, p < .01$), a weak positive correlation between CC employee awareness of HWP and leadership support for HWP ($r = .18, p < .01$), and no statistically significant association between CC employee usage of HWP and perceived leadership support for HWP ($r = .04, p = .34$).

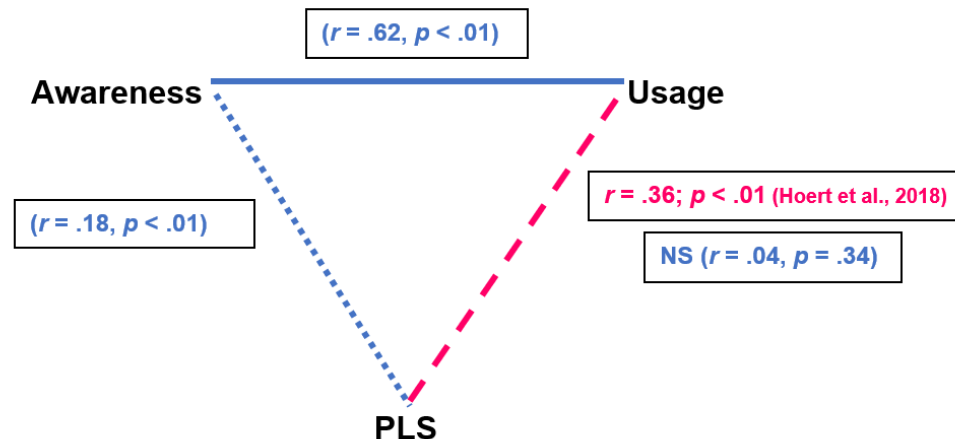
In general, the results of this study indicated that if employees were aware of HWP, they tended to utilize HWP. In addition, there was an association between awareness and leadership support for HWP. That is, the more leadership support for HWP that was perceived, there was a tendency to be more aware of HWP, or the more aware of HWP employees were, they perceived more leadership support.

Although the results of this study did not find a significant relationship between employee perception of leadership support for HWP and usage of HWP, another study has found

this relationship. Like this study, Hoert et al. (2018) modified the LBE instrument to explore the relationship between leadership support for health promotion and wellness program participation as one of the aims of their study. Albeit weak, their results indicate a statistically significant correlation between employees' perceptions of leadership support for health promotion and program participation ($r = .36, p = .001$). The sample used in Hoert et al. (2018), however, encompassed three workplace industries, and education was one of the three sampled (one public and one private university were included in the education sample). Figure 4 illustrates the relationship of the findings of this present study and the Hoert et al. (2018) study.

Figure 4

Visual of the relationship findings between the variables in the present study and Hoert et al.'s



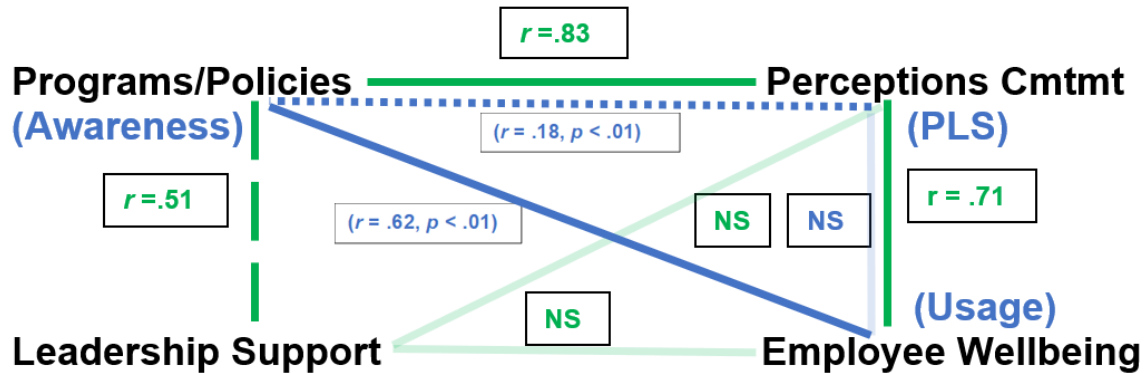
Many studies cite the importance of the role of leadership in the adoption and success of HWP (Dejoy et al., 2009). This topic has gained momentum (Milner et al., 2013) with researchers demonstrating that policy, environmental, and general support from leadership

provides for a more successful HWP (Dejoy et al., 2009; Hill & Korolkova, 2014; Hill-Mey et al., 2013; Linnan et al., 2017; Lloyd et al., 2017; Rinaldi-Miles & Das, 2016; Rose et al., 2017). Simply stated, employees could not be aware of HWP if there was not an HWP established; therefore, leadership support for such programs may realistically be perceived as a primary impetus for the creation and sustained success of such programs. Conversely, leadership support for HWP is a moot point if employees are not even aware of such HWP offerings.

Many researchers have acknowledged that awareness of HWP is critical to program participation and success (Berry et al., 2010; Hill-Mey et al., 2013; Milner et al., 2013; Rinaldi-Miles & Das, 2016). This acknowledgement appears to be in line with the present study given the finding of the relationship between employee awareness and usage of HWP. Likewise, there was the indication of a small relationship between employee awareness of HWP and perceptions of leadership support for HWP. These results were similar to Milner et al. (2013) who found that, usage of HWP aside, companies with high levels of leadership involvement tended to be companies with more worksite wellness policies and programs. Milner et al. (2013) also found that companies with more worksite health promotion policies and programs had employees who were more likely to perceive the companies as committed to their well-being. Milner et al.'s findings indicated that focusing on the actual policies and programs provided in the workplace, or awareness of them, plays an important role in employee perception of leadership support. The perceptions of support then lead to more usage of HWP (through awareness with this study) and healthier employees (Hoert et al., 2018; Milner et al., 2013). Figure 5 is an adapted version of the findings of Milner et al. (2013) along with the interpretation of the present study findings.

Figure 5

An adapted model of the Milner et al. (2013) findings with the present study findings

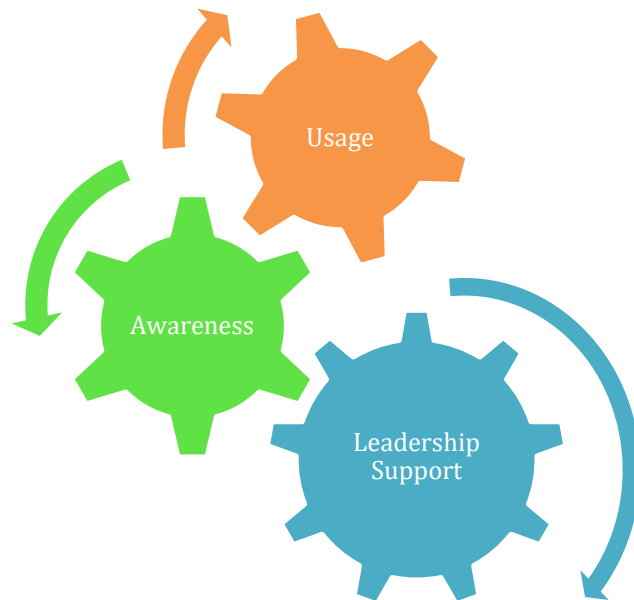


Also, when companies whose employees perceive them as committed to their wellbeing (actual support or more policies and programs) tend to have healthier employees (Hoert et al., 2018; Milner et al., 2013), the momentous variable of leadership support is an important concept to consider. Although there was not a direct relationship between leadership support and employee well-being in Milner et al. (2013), there was an indirect relationship between them through worksite health promotion program and policies and perceptions of company commitment to health promotion. Similarly, the present study did not find a statistically significant direct relationship between leadership support for HWP and usage of HWP, but there was an indirect relationship between them through awareness. Therefore, if more leadership support is occurring, or perceived, then more awareness of HWP is taking place, ultimately relating to increased utilization of HWP. This idea is depicted in Figure 6 below. In this figure, leadership support is a catalyst for HWP to exist, thus initiating the rotation of the HWP gears. Although weak, the leadership support prompts HWP awareness, which in turn, directly

influences usage of HWP. Therefore, indirectly, leadership support affects usage of HWP, yet awareness is a key variable. This study's author recommends that wellness program leaders focus resources toward developing awareness campaigns that may include different approaches to marketing, advertising, and incentivizing their HWP.

Figure 6

Visual representation of the relationship of the variables of awareness and usage of HWP, and leadership support for HWP



Research Question 2: Is there is a statistically significant difference in CC employee perceptions of leadership support for HWP across three levels of leadership in a CC system?

A one-way ANOVA was conducted to determine if CC employee perceptions of leadership support for HWP differed across three levels of leadership: district administration, campus administration, and direct supervisor. Results indicated that perceptions of leadership support differed significantly across levels of leadership $F(2, 1860) = 57.84, p < .001, (\eta^2) = .06$. Tukey's post hoc analyses revealed that perceptions of leadership support differed significantly on each level of leadership. Descriptive statistics indicated that employees perceived most support by their direct supervisor ($M = 3.94$), followed by their campus administration ($M = 3.59$), followed by their district administration ($M = 3.31$).

Leadership support for HWP has been shown to be necessary for ensuring the adoption and success of HWP (Dejoy et al., 2009; Hill & Korolkova, 2014; Hill-Mey et al., 2013; Linnan et al., 2017; Lloyd et al., 2017; Rinaldi-Miles & Das, 2016; Rose et al., 2017). Specific examples of positive employee outcomes with leadership support in HWP include a decrease in job stress for employees, increased employee participation in wellness activities (Hoert et al., 2018), and improved employee health outcomes (e.g., obesity; Lemon et al., 2009). Evidence of leadership support benefitting the employer, such as improved employee attendance (Dellve et al., 2007), improved productivity (Chen et al., 2015), and overall positive health climate in businesses has been observed (Barrett et al., 2005; Dejoy & Wilson, 2003; Dejoy et al., 2009). Leadership support is also symbolic as leaders not only exude personal influential health demeanors, but their actions of support for HWP can also convey a message of care and concern for the well-being of their employees (Milner et al., 2013). However, many of these leadership

support studies have been conducted in business and industry settings, and not higher education. In addition, a large number of employers claim they are in support of wellness programming (Dejoy et al., 2012; Linnan, 2017), but few studies have investigated employee perception of this support or potential differences in support for HWP among the varying levels of leadership (Linnan et al., 2007).

This finding was consistent with literature that cites similar manager level effects on employee HWP involvement (Berry et al., 2010; Dejoy et al., 2012; Linnan et al., 2007). This study, however, is the only one, to the knowledge of the researcher, to have found evidence of leadership level differences in CC employee perception of support for HWP. Kleim and Takeda-Tinker (2009) found a relationship between faculty job satisfaction and the leadership practices of their direct supervisor also in a CC, but the study was not related to health and wellness programming. In this study, the leadership level that worked closest to the employee was perceived as providing more support for HWP. This finding seems logical given the proximity and collaboration of the work relationship between employee and direct supervisor. For example, department chairs or heads, are leaders who work closest with employees in a higher education setting. They are the first to hear of any employee problems or concerns, they know when and how often employees take off work, they see their employees' work ethic and demeanors, and they themselves also have a significant impact on the well-being of their subordinates.

Recommendations

Literature also alludes to the importance of leadership practices and policy consistency when implementing HWP. Rinaldi-Miles & Das (2016) found that some departments permit particular HWP benefits, such as flex-time, while others do not. Therefore, to ensure employees feel supported for HWP (and, thus, more aware of and utilization of HWP), it is recommended that specific HWP training be available for all leadership levels to remind them of the importance of their role, to help to market and promote HWP, to control consistency of HWP policies, and to recruit their own ideas and garner feedback regarding HWP. Dejoy et al. (2012) suggested training opportunities for, specifically, middle managers and site leaders on what they can do to influence healthy behaviors within their worksite. In addition, it was suggested that worksite leader interventions should focus on leadership “buy-in and ownership [of HWP] and provide clear and specific guidance on how leaders can influence behavior change” (Dejoy et al., 2012, p. 416). In the midst of competing priorities, leaders require reminders that “health improvement is a priority and about how best to influence positive change in targeted health behaviors” (Dejoy et al., 2012, p. 416). An added recommendation is to extend HWP training to all employees of a system and institution. Just like there are short mandatory compliance trainings for employees on topics such as Title IX, Infectious Diseases, or Safety in the Workplace, a brief, yet informative, training on HWP could also be very effective to raise programmatic awareness. Offering general HWP trainings to the employees have the potential to: educate employees on the importance of offering HWP, inform employees of what programs and resources are available, describe how leadership supports the programs, gather suggestions from employees on the types of programs and modalities that interest and best suit them, and receive employee feedback regarding what works or does not work (similar to a needs

assessment and program evaluation in one). If the general HWP training cannot be mandatory for existing employees, it can, at minimum, be permitted as professional development. All new employees should be required to complete this training as part of their college onboarding process to commence their job tenure with HWP awareness. Through HWP trainings for leadership levels (especially for the direct supervisor) and HWP trainings for all employees, the college system is bound to increase perceptions of leadership support and awareness, thus increasing usage of HWP.

Research Question 3: Is there is a statistically significant difference in CC employee awareness, usage, and perceptions of leadership support for HWP across multiple campuses within a CC system?

Three, separate, one-way ANOVAs were conducted to determine if CC employee awareness, usage, and perceptions of leadership support for HWP differed across multiple campuses in the CC system. The campuses included Northeast, Northwest, Southeast, South, Trinity River, and other (to include other buildings owned and operated by the CC system, but not labeled a campus). Results indicated that mean perceptions of leadership support differed significantly across campuses $F(5, 615) = 2.86, p = .015, \eta^2 = .023$. Tukey's post hoc analyses revealed that the Southeast campus ($M = 3.86$) differed significantly from the Trinity River campus ($M = 3.42$) in their perceptions of leadership support for HWP. Neither mean employee awareness ($p = 0.51$) nor mean employee usage ($p = 0.30$) differed significantly across campuses.

Awareness

Employee awareness was scored on a 3-point Likert scale: 1 (*not aware*), 2 (*slightly aware*), and 3 (*aware*). Figure 4 in Chapter 4 displays the histogram for overall CC employee awareness. The overall CC awareness mean (2.15) and median (2.23) scores are close to each other, indicating fairly close distribution and that the employees are, in general, *slightly aware* of HWP.

Although seldom measured, researchers have suggested that a lack of participation in HWPs may be due to a lack of program awareness (Dejoy et al., 2012; Hill-Mey et al., 2013; Miller, 2012; Rinaldi-Miles & Das, 2016). Since simply providing an HWP is not enough to evoke participation (Walters, 2015), it is prudent to quantify employee awareness of HWP. A 2012 Colonial Life Survey sought to gather information on the types of benefits offered to employees (Society for Human Resource Management, 2012). The education industry represented 11% of the survey results that found that more than half of the employees were *somewhat* or *not at all knowledgeable* about their employer's HWP (Society for Human Resource Management, 2012). As demonstrated, few studies have actually measured awareness in higher education, but it has come up as a factor in qualitative research (Hill-Mey et al., 2013; Rinaldi-Miles & Das, 2016). This study set out to specifically measure awareness in CC employees. The results are comparable to the limited literature that suggests that some employees are aware of some benefits and resources, while others are not. Just as usage of HWP is measured, it is recommended that awareness be just as frequently measured in higher education institutions, which can also be a part of a campaign to enhance awareness. That is, asking employees if they are aware of particular HWP benefits and resources would also be

promoting those benefits and resources to those unaware of them (or who may have forgotten about them).

Usage

Unlike awareness, usage is commonly measured to determine the success of HWP, since researchers have found that participation in HWP is central to leveraging the value of health promotion programming (Goetzel et al., 2001; Goetzel et al., 2007; IFEBP, 2018; Grossmeier, 2013; Hill & Korolkova, 2014; Taitel et al., 2008; Terry et al., 2008). Employee wellness program participation has been reported as generally low (Ball, 2009), especially without the use of incentives (The Rand Corporation, 2015). This study had a similar finding.

For this study, usage was dichotomized and analyzed on a 2-point Likert scale: 0 = *never used*; and 1 = *used in the past/ use currently*. Table 6 in Chapter 4 shows the overall and per campus HWP usage means/percentages. Overall, only 27% of the CC employees reported using HWP. In a study of CCs accredited by the SACS, participation rates in HWP initiatives ranged between 5 and 15% (Thornton & Johnson, 2010). Although the present study is not generalizable, it appears that health promotion is only increasing higher education employee usage of HWP by approximately 1% per year, in the past decade. In terms of HWP campus usage for this study, the campus with the highest HWP usage percentage was the Northeast Campus at 31%. The campus with the lowest HWP usage percentage was the South Campus at 24%. This author recommends that the college establish an annual employee HWP usage percentage goal and share this goal with all employees. This common institution goal, with the establishment and sustained support of leadership, will help to enhance HWP awareness and usage. The IFEBP (2018) survey report stated that HWPs with above-average participation rates

shared a common characteristic of having organizational leadership that helps communicate HWP efforts.

Perceptions of Leadership Support

The scale for leadership support of HWP was a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The overall college employee perception of leadership support for HWP mean score ($M = 3.61$) was close to the median score ($Mdn = 3.67$), indicating a fairly even distribution with tendency toward *agreement* with college leadership support for HWP.

As mentioned, leadership support for HWP has gained more momentum (Milner et al., 2013), yet there have been little attempts to measure leadership support for HWP. The LBE tool was developed by Della et al. (2008), which has led other researchers to examine, and measure, the specific factor of leadership support for HWP. Milner et al. (2013) utilized the LBE instrument to measure leadership support in a survey to the employer rather than the employee. Dejoy et al. (2012) used the LBE instrument to measure employee perception of the health climate. Neither of these studies were completed in the higher education setting. Hoert et al. (2018), on the other hand, used the LBE to explore possible relationships between leadership support for HWP and wellness program participation, as one of the study's aims. The sample included three industries, one of which was educational services (a public and a private university). The current study, to the knowledge of the researcher, is the only one to have used the LBE as a means to measure employee perceived leadership support for HWP in a CC sample, let alone across multiple campuses of the same system.

Recommendations

When multiple worksites are involved in HWP endeavors, such as with this study, it can be challenging to communicate, operate, and evaluate uniformly, especially when there are different levels of decision makers, different campus infrastructures, and different campus resources. However, Healthy People recognizes the importance and benefits of leveraging health through the workplace and in educational and community settings. According to Healthy People 2020 (2019), programs that integrate the multiple settings of schools, worksites, health care facilities, and communities, can have greater a great affect than programs using only one setting. CCs represent all four of these settings and have the potential to support research examining how assets can be optimized to serve the health needs of campus constituents. Therefore, other factors that leadership and stakeholders can consider when adopting and growing HWPs in a higher education system entail inclusivity, consistency, and leveraging assets.

Inclusivity of HWP can refer to not only ensuring that the HWP reaches all employees of all campuses, but also that the employees are recognized as an important component of the college system. A goal is defined as “the end toward which effort is directed” (Merriam-Webster, n.d.a). Colleges and universities institute goals to publicly establish where their efforts are directed. The goal statement(s) are a good opportunity to establish support for the well-being of their employees. One of the three goals of this particular college was to operate as “*one college* [emphasis added] to provide a consistent and successful student experience” (TCCD, 2020). However, adding inclusive language to goals and principles will send a message of support for all representatives of the college. For example, “employee and community” could be added to the first college goal statement, to read: “[Name of College] will function as One College to provide a consistent and successful student, *employee, and community* [emphasis

added] experience.” A similar idea was presented by Amaya et al. (2019) when it was suggested that “higher education institutions can incorporate health promotion values and principles into their mission, vision and strategic plans...” (p. 28-29). Also, since one of the five facets of a comprehensive wellness program is the “integration of the worksite program into the organization’s administrative structure” (Healthy People, 2010, p. 19), and it was the least prevalent facet in a study of the status and support for HWP in another CC system (Linnan et al., 2017), this addition to the college goal would be a significant step toward HWP commitment.

In order for a college system to connect, its parts must interconnect through webs dispersing from the center. According to Rose et al. (2017), a full-time permanent wellness employee will “bring stability and ongoing leadership” for wellness in the workplace; “it will create a permanent presence of wellness initiatives and advocacy” (p. 14). In addition, dedicated wellness professionals at each campus would help to carry out the wellness initiatives, thus promoting a culture of wellness (Rose et al., 2017). Therefore, it is recommended that there be a central HWP leadership position, such as a system-wide wellness director, with each campus having their own HWP coordinator (or other similar title) that falls under the director’s leadership. This way, HWP information and dissemination are cohesive and originating from the same source.

Since researchers have agreed that the CC setting is an underutilized yet ideal location for disseminating health promotion (Hill-Mey et al., 2015; Linnan et al., 2010; Pokhrel et al., 2014) it is also recommended to assess and carryout resources that are already in place in the college. Linnan et al. (2017) suggested to “identify and leverage existing campus resources to support employee health promotion programs” (p. 301). For example, each campus can utilize the resources in their public health, health education/promotion, nutrition, nursing, or other allied

health programs to assist in implementing and sustaining the HWP. Resources may include using department personnel or professors as speakers or references, department textbooks or handouts, area classrooms or gym space, or educational visuals for demonstration at health fairs or workshops. In addition, students of these programs can participate in HWP as a part of service learning, experiential education, or through volunteering. Such opportunities allow students to gain experience in their health field of choice and the HWP can benefit from the service the student is providing. Linnan et al. (2010) suggested that “CC systems ...offer a built-in dissemination mechanism for effective health-related programming” (p. 90). An example of this dissemination includes being a part of a large network with communication, education, programming, and community outreach capabilities.

Researchers have identified differences between larger and smaller wellness programs (CDC, 2017; Linnan et al., 2010, 2017; The Kaiser Family Foundation, 2018). There are benefits to each. A CC system with multiple campuses, such as the one in this study, can reap the benefits of both large and small wellness programs. Specifically, larger wellness programs tended to include more comprehensive wellness programs, policies, and environmental supports versus smaller wellness programs (Linnan et al., 2017). A college system such as the one examined in this study can carry out a large-scale comprehensive wellness program, supported by appropriate personnel, infrastructure, and communication platforms, yet still embrace the more intimate and supportive atmosphere of a smaller organization within the individual campuses and buildings.

Based on the overall scores and distribution of the descriptive statistics, employees were only slightly aware of all of the HWP benefits available to them; they generally did not use the HWP benefits available to them (only 27% of the college employees surveyed use HWP); and

yet they agreed with their perceptions of leadership support for HWP. The previously mentioned recommendation in Research Question 2 for HWP training for leadership will help to combat the slight differences that exist between leadership and between campuses. Other mentioned recommendations include a reorganization of the health and wellness program infrastructure for employees, measuring awareness more frequently in the workplace, establishing usage percentage goals frequently to help increase participation in HWP, an increase in marketing and incentivizing for HWP, and an all-employee HWP training. These are suggestions to help increase support, awareness and, thus, usage of health and wellness programming and benefits.

Research Question 4: Is there is a statistically significant difference in CC employee awareness of HWP, usage of HWP, and perceptions of leadership support for HWP across employment roles?

There is limited research examining the relationship between employment role and wellness programming in CC. However, what is known suggests that there is an interest in employee wellness programming at universities, regardless of employee role (Tapps et al., 2016). There are also differences in participation rates among the employment roles (Leininger et al., 2015; Rinaldi-Miles & Das, 2016) and differences in wellness interests and needs among the employee roles (Tapps et al., 2016). Therefore, it was important to determine how worksite wellness programming was perceived and experienced by and affects CC employees across different employment roles.

Awareness

Table 9 demonstrates the individual and overall HWP awareness means by employment role. So even though faculty were significantly less aware of HWP offerings than staff and

administration, it does appear that the college, as a whole, could improve their employee awareness of available HWP.

Table 9

Means and Standard Deviations for HWP Awareness by Employment Role

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
Employment Role			
Faculty	321	1.96 ^a	0.58
Staff	231	2.33 ^b	0.47
Administration	67	2.46 ^b	0.35
Overall	619	2.15	0.56

Note. Means with different superscripts differ significantly, $p < .05$.

Usage

Leininger et al. (2015) found statistically significant differences in participation in HWP among university employment roles. Staff had the highest participation percentage (37.8%), followed by administration (36.7%), and then faculty with the lowest participation percentage (11.5%; Leininger et al., 2015). Similarly, the present study found faculty usage of HWP to be the lowest percentage. Table 10 shows the category and overall HWP usage means/percentages by employment role for this study. Of the three employment roles, administration reported using HWP the most at 40%, followed by staff at 35%, and then only 19% of faculty reported using HWP. This makes sense as administrators tend to be more knowledgeable of college policies, programs, and offerings as a part of their position and tenure. However, although faculty reported using HWP significantly less than staff and administration, it appears that the college, as a whole, could increase their usage of existing HWP.

Table 10*Means and Standard Deviations for HWP Usage by Employment Role*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
Employment Role			
Faculty	294	0.19 ^a	0.21
Staff	222	0.35 ^b	0.24
Administration	65	0.40 ^b	0.22
Overall	581	0.27	0.24

Note. Means with different superscripts differ significantly, $p < .05$.

Means (*M*) are a percentage of usage of HWP for each employment role.

As mentioned, faculty showed the lowest awareness and usage scores across employment roles. In the literature, faculty differ from staff and administration in a number of different ways, including having more flexible working hours unlike administration or staff that commonly work within traditional business hours (Melnik et al., 2016; Terrell et al., 2015). This would make one think that faculty should have more utilization of HWP since they have more flexible work schedules, yet in this study, they used HWP significantly less than staff and administration. According to Rinaldi-Miles and Das (2016) workload and job stress may be factors that increase sedentary behaviors in this faculty population. Faculty are often balancing around-the-clock teaching, emails, research, and participation in organizations or committees, which can be stressful and lead to poor health behaviors (Rinaldi-Miles & Das, 2016). Although researchers have recommended that the college increase their support and awareness for HWP toward all employees, it appears that the faculty population may need a different approach to encourage such participation.

In the research, staff have also been highlighted as being a population in need of wellness programming. Research suggests that specific subgroups of workers, such as blue-

collar, low-income workers, or underrepresented ethnic or racial groups, have less access to health promotion programs (Basas, 2014; Bondi et al., 2006; Kellar-Guenther, 2016; Linnan et al., 2007). The intent of the current study was to examine the awareness, usage, and perceptions of leadership support for HWP by a more diverse group of employees. Unfortunately, this study was not able to obtain enough responses from multiple employment roles, including building services, custodians, health services, and other, to be able to address this research question in a manner originally intended.

Perceptions of Leadership Support

Terrell (2015) investigated employee perceived barriers to participation in HWPs in a private university and found differences among all roles (administration, faculty, staff, and other, such as Barnes & Noble employees). Most of the employment role disparities were revealed in survey wellness questions relating to technology, fitness facilities, and at the institutional level barriers, such as opinions regarding who should serve on the wellness teams, and for flex-time and paid time off. Each employment role had their own differences, but in terms of faculty, Terrell (2015) found that faculty differences were derived from perceived support. On the contrary, this study did not find any employment role differences when it came to perceived leadership support.

Recommendations

The prior recommendations for HWP inclusivity and training for all employees applies to this research question, as well. In this sense inclusivity refers to the ability of the HWP to reach all employees, no matter the employment role or other diversities (such as race, ethnicity, education level, technological literacy, handicaps, etc.) that would deter them from participating

in HWP. This way all employees, especially faculty, are encouraged to become more aware of, and thus, utilize HWP more.

Also, since this study provides evidence to support employee role disparities in awareness and usage of HWP, then carrying out HWP should include different and creative avenues of marketing and incentivizing HWP participation. A centralized wellness division for the college could help to maintain and deliver consistent HWP offerings and policies. This way one group does not have more access to HWP over others, no matter their position. Institutions will have different needs for their varying employee roles, which is why a needs assessment and evaluation are also recommended to be completed annually, and built into employee training. This researcher recommends that in an attempt to reach all employee groups, HWP offerings include a multitude of different health topics through varying modalities (online live, recorded, hybrid, and face-to-face programming).

Implications for Health Education Specialists

The evidence this study provided can assist health education specialists at the institution, and similar institutions, by providing insight into how they can improve their execution of their areas of responsibility. The National Commission for Health Education Credentialing (NCHEC) spotlights seven Areas of Responsibility for Health Education Specialists. The seven areas include:

- (1) assess needs, resources and capacity for health education/promotion, (2) plan health education/promotion, (3) implement health education promotion, (4) conduct evaluation and research related to health education/promotion, (5) administer and manage health education/promotion, (6) serve as a health education/promotion

resource person, and (7) communicate, promote, and advocate for health, health education/promotion, and the profession (NCHEC, 2020).

Generally speaking, the overall evidence that this study provided in awareness of HWP, usage of HWP, and perceived support for HWP can assist health education specialists in Areas 7, 3, as well as 2 and 5, respectively. There was evidence in this study that awareness played an integral role in successful HWPs. Without awareness, usage of HWP is unlikely, and therefore, a carefully targeted HWP communication and marketing campaign is warranted, especially tailored to varying employment roles. In terms of usage of HWP, a health education specialist's role is to implement HWP, and an awareness campaign can facilitate this implementation. This study also provided further evidence that employees perceive more support for HWP from leadership who work closest to them, such as a direct supervisor or department chair instead of more distant leaders. This important finding assists health education specialists in knowing who to target as a part of their planning, administering, and managing of health education/promotion programming. For example, health education specialists could plan to direct HWP training toward these leadership roles as a part of their HWP management and marketing plan.

There were many recommendations provided in this chapter based on the findings from this study. For example, the unique recommendation to incorporate a needs assessment into a mandatory (or reward-based) online employee training would assist health education specialists in carrying out many of the Areas of Responsibility. In conjunction with an online training to ensure employees were aware of the resources and programs offered to them (Area 7), the institution's health education specialist could ask employees about their own wellness program needs and ideas (Area 1), and receive feedback for improvement and quality (Area 4). In addition, all HWP personnel could be introduced within the training and their contact

information be disseminated (Area 6). Upon receiving this information, the HWP personnel would be able to utilize the network contacts and data to assist with program planning (Area 2) for the next academic year (Area 3). During that next academic year, the health specialist can administer and manage the institution's current HWP (Area 5).

Study Limitations

This research included multiple limitations. The sample included full- and part-time employees of one CC system located in North Texas; therefore, external validity was limited, and study results cannot be generalized to other community colleges or universities. In addition, survey data was self-reported by the participants, and therefore subject to self-reporting bias, which can also limit external validity.

Although there was recoding of employee roles into three categories, it is possible that employees were employed in multiple roles (e.g., faculty with staff responsibilities), which poses a threat to internal validity. The employees who participated in the study may have shared systematically different and unmeasured characteristics from those who chose not to participate in the study, which can also limit internal validity. For example, employees inherently interested in wellness programming may be overrepresented in the study sample.

As an additional limitation, only one mode was used for survey delivery. Due to resource constraints and in consideration of the optimal way to reach the entire population during the COVID-19 pandemic shutdown, the author determined that an online delivered survey instrument was logistically preferable to a pen and paper survey instrument. In exchange for the benefits of rapid and widespread survey dissemination, the primary researcher limited the ability to reach and resonate with employees whose positions were not as technologically-dependent or technologically fluent as employees in other employment roles. For example, this researcher

anticipated gathering more responses from blue-collar workers, such as building services and custodians, who are cited in the literature as having less access to HWP but the online survey mode was not optimal for their work responsibilities (Melynk et al., 2016; Terrell, 2015).

Another limitation of the study is that the survey distribution occurred during the onset of the 2020 COVID-19 pandemic. The survey distribution occurred in April 2020 when the CC campuses were shut down and employees were rapidly transitioning to working from home. In the midst of many health questions and concerns, the mindset of employees could have been affected and distracted from campus programming, thus altering their scores.

Lastly, the scales for awareness and usage were not validated. However, one can assume that an employee would be more aware of HWP with more time the employee has worked at the college. Therefore, the variable for how long the participant has worked at the college was recoded for total years and a Pearson correlation was conducted. The results indicated a positive correlation between the time employees have worked at the college and their awareness of HWP scores ($r = .23, p < .01$). In addition, a Cronbach's alpha test to examine internal scale consistency was conducted for the 13 awareness and 12 usage items. The values for awareness and usage were .89 and .91, respectively.

Recommendations for Future Research

Future research pertaining to HWPs in higher education should encompass mixed-methods research so that employees' specific reasons, needs, and differences can be comprehensively examined and used for programmatic improvement. For example, this study identified employee perceptions of leadership support for HWP differences across three levels of leadership (district administration, campus administration, and direct supervisor). It would be insightful to delve into those differences so that the field of health education/promotion can

better understand the role leadership plays in HWP success. Possible probing questions could include, *what qualities about leader A (vs. B vs. C) make you feel supported to participate in HWP?* or *what does leader A (B and C) do to demonstrate their support for HWP?* This information may be instrumental for developing future leadership HWP trainings. For the research question pertaining to differences among campuses, it would be interesting to better understand what specific ways employees have become more aware or why they utilize HWP (motivating factors), and compare these anecdotal reasons to other campuses. In addition, future research could ask employees why they do or do not perceive leadership support for HWP participation, and compare their responses to other campus employee responses. Lastly, it would be informative and insightful to delve into other factors that may influence the employees' awareness, usage, or perceptions of leadership support for HWP. For example, there may be some employees who utilize HWP resources outside of the workplace, such as fitness centers or nutrition programs. Analyzing qualitative data such as this in a mixed-methodology could also assist with the college's one college approach to operating by ensuring that common practices and policies are being adhered to. Qualitative data, in addition to the quantitative data, would provide rich data for better understanding the perceptions of leadership support for HWP, and HWP awareness and usage levels across varying employee roles.

The current study did not recruit a diverse group of employment roles as originally intended, such as blue-collar workers. Therefore, future research should focus on efforts to include these groups of employees in HWP research. Dillman et al. (2014) recommended tailoring the mode of data collection to the population. With a diverse workforce population in higher education, future research could utilize an electronic survey, along with a paper-and-pen survey for participants who work away from computer access or who prefer a hard copy.

Dillman et al. (2014) also suggested that multiple survey modes can “improve response rates and reduce nonresponse error by appealing to different kinds of respondents” (p. 13). Therefore, the electronic survey could be disseminated via email or could be pre-programmed on iPads or laptops in employees’ high-traffic locations. In addition, a supplemental qualitative approach could include focus groups or one-on-one interviews with a diverse group of employees. Lastly, the use of incentives could benefit recruitment of diverse employees to participate in future surveys. The incentives could be more useful as in-person prizes or tokens of appreciation to recruit participants to complete the survey at that moment. For example, a small \$5.00 gift card or lapel pin could be given to employees who participate in the survey in-person (paper or pre-programmed iPads or computers). This way more individuals could receive awards for their participation, rather than a few randomly selected prize winners.

Since HWP’s have been shown to influence a company’s bottom line in business and industry settings, future research should also include a cost-benefit analysis of HWP’s in higher education, especially in CCs. A meta-analysis found that employers, on average, save \$3.27 in health care costs and \$2.73 in absentee costs for every dollar invested in worksite wellness programming (Baicker et al., 2010). Only 16% of the sample in this analysis included the education industry. Therefore, this author recommends a specific higher education return on investment analysis for HWP. Although “costs certainly should not be the sole criterion used in assessing whether wellness programs worked or did not” (Pfeffer, 2018, p. 32), a cost-benefit analysis is a part of the equation that may demonstrate the “business case” for administrators (Hill-Mey et al., 2015, p. 3).

Lastly, it would be informative if future research encompassed a nationally representative study of CC systems, so that differences could be compared and the results could be more generalizable across the United States.

Conclusions

Historically, researchers have conducted less workplace wellness research within institutions of higher education compared to corporate organizations. Within higher education, CCs are less represented in research, yet have been identified as an underutilized resource for disseminating health and wellness programming (Healthy People 2020, 2019; Hill-Mey et al., 2015; Linnan et al., 2010). This study contributed to literature by focusing on this understudied setting. In particular, this study ventured into the perceptions of its CC employees regarding leadership support for HWP, as well as their actual awareness of and utilization of HWP. A moderate relationship between awareness and usage of HWP was identified, with a key variable of leadership support serving as a catalyst for awareness to occur. With increased employee awareness of HWP, more employee usage of HWP has been shown to occur. Findings began to fill a gap in the literature by examining and confirming that differences in college employee perceptions of wellness support across three levels of academic leadership (district administration, campus administration, and direct supervisor) exist. This study provided support that the closer leadership worked with an employee, the more support for HWP that employee perceived. Lastly, the study also provided insight into possible ways leadership at different levels can use the college system to their advantage to improve health promotion and engage employees across different job types and across multiple campus locations. In turn, a system-wide culture of health ripple effect (Linnan et al., 2010) is possible to promote health and

wellness to employees, a diverse student population (American Council on Education, 2019), families, and local communities (Tapps et al., 2016).

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APPENDIX A

Initial Email Correspondence to Participants

Hello TCC colleagues,

As a doctoral student at Texas Woman's University, I am conducting a research dissertation study to determine employee awareness and usage of wellness programming, and employee perceptions of leadership support for employee wellness programming. For this study, you will be asked to complete a survey, which should take approximately 10 minutes to complete.

To encourage your participation, there will be three randomly selected Amazon gift card prizes at \$50 each. To enter into the drawing you will have the opportunity to provide your identifiable contact information at the end of this survey in a separate link. Your contact information, however, will not be tied to this survey or responses.

To participate in the survey please click on the following link:

[Link]

Your participation in this study is voluntary, and you may withdraw at any time without negative consequences.

Submission of the online survey will be interpreted as your implied consent to participate and that you affirm that you are a TCC employee (full- or part-time), 18 years of age or older.

There is a potential risk of loss of confidentiality in all email, downloading, electronic meetings, and internet transactions. The other risk includes your time.

In an attempt to minimize risks you will have an option to save the portion of the survey you have completed and return to complete the remaining survey at a later time. In addition, all information will be handled in a strictly confidential manner, and no one will be able to identify you when the results are recorded. As soon as data collection is complete, data will be exported and the survey and results removed from the survey website. The research data will be encrypted and regularly backed-up. Only two individuals who will have access to the data: the primary investigator and the primary investigator's advisor.

The researchers will try to prevent any problem that could happen because of this research. You should let the researchers know at once if there is a problem and they will try to help you. However, TWU does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research.

Please feel free to contact Toni Swan at 302. 690. 8664 or tpannell1@twu.edu if you have any questions about the study. For Institutional Review Board questions, please contact TCCD's Institutional Review Board chair at 817-515-1516.

Sincerest gratitude for your participation,
Toni Swan

APPENDIX B

Second Email Correspondence to Participants

Hello TCC colleagues,

Last week I sent you a link to a survey within an email. The survey is part of my doctoral research in which I plan to analyze employee awareness and usage of wellness programming, and employee perceptions of leadership support for employee wellness programming.

Your participation should take about 10 minutes. To encourage your participation, there will be three randomly selected Amazon gift card prizes at \$50 each. To enter into the drawing you will have the opportunity to provide your identifiable contact information at the end of this survey in a separate link. Your contact information, however, will not be tied to this survey or responses.

If you have already completed the survey, please accept my sincerest gratitude for your time and responses!

If you have not yet completed the survey, please complete it soon as the survey is closing at the end of the week.

To participate in the survey please click on the following link:

[Link]

Your participation in this study is voluntary, and you may withdraw at any time without negative consequences.

Submission of the survey will be interpreted as your implied consent to participate and that you affirm that you are a TCC employee (full or part-time), 18 years of age or older.

There is a potential risk of loss of confidentiality in all email, downloading, electronic meetings, and internet transactions. The other risk includes your time.

In an attempt to minimize risks you will have an option to save the portion of the survey you have completed and return to complete the remaining survey at a later time. In addition, all information will be handled in a strictly confidential manner, and no one will be able to identify you when the results are recorded. As soon as data collection is complete, data will be exported and the survey and results removed from the survey website. The research data will be encrypted and regularly backed-up. Only two individuals who will have access to the data: the primary investigator and the primary investigator's advisor.

The researchers will try to prevent any problem that could happen because of this research. You should let the researchers know at once if there is a problem and they will try to help you. However, TWU does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research.

I appreciate your consideration to contribute to this research study. It is only with the feedback from as many TCC employees as possible that I can interpret survey results as accurate and learn more about the effectiveness of current health and wellness programming and your support for such programs.

Please feel free to contact Toni Swan at 302. 690. 8664 or tpannell1@twu.edu if you have any questions about the study. For Institutional Review Board questions, please contact TCCD's Institutional Review Board chair at 817-515-1516.

Sincerely,

Toni Swan

APPENDIX C

The Employee Health and Wellness Survey

Part I: Demographic Information

1. What TCC Campus do you primarily physically work in?
☐ Northeast ☐ Northwest ☐ Southeast ☐ South ☐ Trinity River ☐ Other_____
2. Do you work part-time or full-time?
☐ Part-time ☐ Full-time
3. Which job category best describes the type of work you primarily do for TCC?
☐ Faculty ☐ Support staff ☐ Administration ☐ Building Services
☐ Retail ☐ Custodian ☐ Health Services ☐ Other
4. How long have you worked for TCC? _____
5. What is your age? _____
6. What is your gender?
☐ Male ☐ Female ☐ Transgender ☐ Other
7. What is your marital status?
☐ Married ☐ Single ☐ Divorced ☐ Widowed ☐ Do not wish to Respond
8. Do you have children under the age of 18 living at home?
☐ Yes ☐ No ☐ Part-time
9. What is the highest level of Education you have obtained?
☐ Less than a High School Diploma ☐ High School Diploma ☐ Some College
☐ Bachelor's Degree ☐ Master's Degree ☐ Doctorate
10. Are you Hispanic or Latino? (Mark all that apply)
☐ No ☐ Yes, I am Mexican, Mexican American, Chicano(a) ☐ Yes, I am Puerto Rican
☐ Yes, I am Cuban ☐ Yes, I am another Hispanic, Latino(a) Spanish origin
11. What is your race? (Mark all that apply)
☐ White or Caucasian ☐ Black or African American ☐ Asian
☐ American Indian or Alaska Native ☐ Native Hawaiian or Other Pacific Islander

Part II: Leadership Support

For the next five questions, please rate each leadership level on a scale of 1 through 5:
1= strongly disagree; 2= disagree; 3 = neutral; 4 = agree; 5 = strongly agree.

Each leadership level can be classified as within one of the following categories:

District Administration: Chancellor, Board (CELT)

Campus Administration: Campus president, Vice president(s)

Direct Supervisor: Department/Area Head or Chair

1. This leader is committed to health promotion as an important investment in human capital.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
District Administration	1	2	3	4	5
Campus Administration	1	2	3	4	5
Direct Supervisor	1	2	3	4	5

Optional Clarifying Comments:

2. This leader views the level of employee health and well-being as an important indicator of the Tarrant County College's success.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
District Administration	1	2	3	4	5
Campus Administration	1	2	3	4	5
Direct Supervisor	1	2	3	4	5

Optional Clarifying Comments:

3. Overall, this leader promotes a culture of health and well-being.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
District Administration	1	2	3	4	5
Campus Administration	1	2	3	4	5
Direct Supervisor	1	2	3	4	5

Optional Clarifying Comments:

4. This leader is taking direct steps to positively impact employee health.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
District Administration	1	2	3	4	5
Campus Administration	1	2	3	4	5
Direct Supervisor	1	2	3	4	5

Optional Clarifying Comments:

5. This leader understands the importance of employee health.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
District Administration	1	2	3	4	5
Campus Administration	1	2	3	4	5
Direct Supervisor	1	2	3	4	5

Optional Clarifying Comments:

Part III: Awareness of programs and benefits

Please rate your overall awareness of the health and wellness benefits TCC has to offer, based on a scale of 1 to 3.

1= not aware; 2= slightly aware; 3 = aware

	Not Aware	Slightly Aware	Aware
1. I am aware that there are Blue Cross Blue Shield of Texas wellness offerings, including discounted gym/fitness center memberships.	1	2	3
2. I am aware that there are Blue Cross Blue Shield of Texas wellness offerings, including weight management programs.	1	2	3
3. I am aware that our college is a Blue Zones Project Approved™ Worksite, which puts best practices in place to improve the well-being of staff, faculty and students.	1	2	3
4. I am aware that I have access to an <i>Employee Assistance Program</i> (EAP), that provides short-term counseling, and legal and financial consultation, among other community resources (for e.g., referrals for childcare, eldercare, prenatal care, adoption, parenting and children with special needs)	1	2	3
5. I am aware that there are 30 minutes allotted during the work day to exercise.	1	2	3
6. I am aware that full-time employees may take a class at TCC (based on availability) through the <i>Employee Enrichment</i> program at no cost and no limit to the number of courses I may take.	1	2	3

7. I am aware that TCC will waive my TCC tuition payment if I am a full-time budgeted employee who has been employed for 12 continuous months prior to the first day of registration for the chosen term.	1	2	3
8. I am aware that TCC offers a tuition assistance program (TAP) for undergraduate or graduate courses taken at another regionally accredited public or private post-secondary institution.	1	2	3
9. I am aware that I have access to a <i>virtual visit</i> with a doctor for medical or mental health concerns, through Blue Cross Blue Shield of TX 24/7.	1	2	3
10. I am aware that I can have my medical co-pay reimbursed to me (and my spouse/children, if covered), up to \$300 per calendar year through the TCCD Supplemental Health Plan, administered by Fox/Everett.	1	2	3
11. I am aware that each main campus has a fitness facility for my use.	1	2	3
12. I am aware that there is a wellness coordinator at each main campus.	1	2	3
13. I am aware that my campus wellness coordinator helps to create health related activities and events.	1	2	3

Part IV: Usage of programs and benefits

Please rate your overall usage of the health and wellness benefits TCC offers, based on a scale of 1 to 4.

1= Never Used; 2= Used in the Past; 3 = Use Currently; 4 = Not Applicable to me

	Never Used	Used in the Past	Use Currently	Not Applicable
1. I use the Blue Cross Blue Shield of Texas wellness offerings, including discounted gym/fitness center memberships	1	2	3	4
2. I use the Blue cross Blue Shield of Texas wellness offerings, including weight management programs.	1	2	3	4
3. I use the Blue Zones Project resources, such as potluck or walking moais (groups), cooking demonstrations, and purpose workshops.	1	2	3	4
4. I use the <i>Employee Assistance Program</i> .	1	2	3	4
5. I use the employee option to exercise for 30 minutes during the workday.	1	2	3	4
6. I use the <i>Employee Enrichment program</i> .	1	2	3	4
7. I use the tuition waiver program.	1	2	3	4

8. I use the tuition assistance program (TAP).	1	2	3	4
9. I use the <i>virtual visit</i> feature through Blue Cross Blue Shield of TX.	1	2	3	4
10. I use the medical co-pay reimbursement supplemental health plan administered by Fox/Everett.	1	2	3	4
11. I use a TCCD fitness facility.	1	2	3	4
12. I use my wellness coordinator sponsored events and activities.	1	2	3	4

Part V: Comments & Optional Prize Drawing Contact

Please list any other comments, suggestions, feedback, or interests you may have regarding wellness at Tarrant County College. Your input is an important element to the success of the program, and your responses will remain confidential.

*If you would like to enter a drawing to win one of three \$50 Amazon gift cards, click on the link below to enter your contact information (or copy/paste the link into a new browser). This is a separate link, so your contact information will not be tied to your responses in this survey. Thank you for your time and assistance!

[Link here]

APPENDIX D

Leading by Example Questionnaire Items

Items Analyzed in 2005

1. *Our site leadership is committed to health promotion as an important investment in human capital.
2. Our site leadership provides adequate financial support for health promotion.
3. Our site health promotion programs are aligned with our business goals.
4. All levels of management are educated regarding the link between employee health and productivity and cost management.
5. Employees at all levels are educated about the true cost of health care and its effects on business success.
6. Our site goals and plans advocate for the improvement of employee health.
7. Site objectives for health improvement are set annually.
8. Our site provides management support for health promotion by issuing messages from the site leader about the importance of employee health to the site.
9. Our site provides support for participation in health promotion programs.
10. Our work teams provide support for participation in health promotion programs.
11. *Dow provides our site leadership training on the importance of employee health.
12. Our health benefits and insurance programs support prevention and health promotion.
13. This site offers incentives for employees to stay healthy, reduce their high-risk behaviors, and/or practice healthy life styles.
14. *Our leaders view the level of employee health and well-being as one important indicator of the site's business success.
15. *Overall, our site promotes a culture of health and wellbeing.

Items added in 2006

16. The effectiveness of our health promotion programs is evaluated based upon accepted definitions of success**
17. Site leadership shares information with employees about the effect of employee health on overall business success.
18. All levels of employees are educated about the impact of a healthy workforce can have on productivity and cost management.

Items added by Hoert et al. (2018)

19. [Organization name] offers a work environment that promotes employee health.
20. [Organization name] offers programs and services that help me practice good health.
21. *[Organization name] leadership is taking direct steps to positively impact employee health.

**Items used for the current study*

***not in 2008, 2010*

APPENDIX E

Permission Emails



jennifer.hoert@gmail.com

Tue 7/2/2019 6:15 PM

Ann Herd <ann.herd@louisville.edu>; SWAN, TONIA ✉

All the best with your work, Tonia.

Sent from my iPhone

Please excuse brevity and any typos

On Jul 1, 2019, at 9:32 AM, Ann Herd <ann.herd@louisville.edu> wrote:

Hi Toni,

That is great that you have communicated with Dr. Della because the LBE was designed by her. Yes, you have permission for the additional items, and I'm copying Dr. Jennifer Hoert on this note.

Best wishes on the continued forward movement of your dissertation!

Ann

Ann M. Herd, Ph.D., SPHR, SHRM-SCP, CPC
Assistant Professor, Human Resources and Organization Development
Department of Educational Leadership, Evaluation, and Organization Development
College of Education and Human Development
University of Louisville
Louisville, KY 40292
ann.herd@louisville.edu
502-417-6252

On Sat, Jun 29, 2019 at 12:48 PM SWAN, TONIA <TONIA.SWAN@tccd.edu> wrote:

Hello again, Dr. Herd.

Forgive another email from me, but I just wanted to follow up with another question I had regarding the LBE instrument Dr. Hoert used in her dissertation/article. It appears that there were five additional question/statements added to the LBE that were not in the original validation of 2008 (Appendix A). Was it you and Dr. Hoert (and committee) that added these items? They do not appear in the original LBE, so I assumed so. If they were added by you, may I have your permission to use them?

I do already have permission from Dr. Della to use the LBE (but I did not see these items listed).

Thank you for your time and help in clarifying the LBE!

Sincerely,

Toni

From: SWAN, TONIA

Sent: Saturday, January 19, 2019 11:40 AM

To: Ann Herd

Subject: Re: Permission

Thank you for your quick reply, Dr. Herd.

I have done just that. I just wanted to make sure I was covering all of my bases. 😊

Enjoy the rest of your weekend!

~Toni

From: Ann Herd <ann.herd@louisville.edu>
Sent: Saturday, January 19, 2019 11:37 AM
To: SWAN, TONIA
Subject: Re: Permission

Hi Toni,

That is great that you are doing research in this area of leadership support for health promotion.

I'm thinking that the proper course of action would be for you to reach out and obtain permission from the original authors for the LBE instrument. If my memory serves, we made only minor tweaks to items for purposes of Jennifer's study.

Best,

Ann

Ann M. Herd, Ph.D., SPHR, SHRM-SCP, CPC
Assistant Professor, Human Resources and Organization Development
Department of Educational Leadership, Evaluation, and Organization Development
College of Education and Human Development
University of Louisville
Louisville, KY 40292
ann.herd@louisville.edu
502-417-6252

On Sat, Jan 19, 2019 at 12:18 PM SWAN, TONIA <TONIA.SWAN@tccd.edu> wrote:

Hello Dr. Herd,

I am a doctoral student at Texas Woman's University.

I see you are the correspondence for Dr. Hoert's article *The Role of Leadership Support for Health Promotion in Employee Wellness Program Participation, Perceived Job Stress, and Health Behaviors*.

I understand you had permission to use the Leading By Example instrument, but made modifications to some questions, as well as created your own.

I was just wondering if I may have your permission to use your adapted/new questions for my own dissertation project?

Thank you for your time and contribution to the literature!

~Toni Swan

From: Della,Lindsay J <lindsay.della@louisville.edu>
Sent: Monday, January 21, 2019 1:18 PM
To: SWAN, TONIA
Subject: Re: Permission

Toni,

Yes. You may use it. I have not updated the scale since the last publication. You could check with Dr. David DeJoy (one of my co-authors at the University of Georgia) as to whether he has any updates to the scale that were more recent.

Good luck with your dissertation!

~~~~~  
Lindsay J. Della, Ph.D.  
Associate Professor  
Department of Communication  
University of Louisville

**From:** SWAN, TONIA <[TONIA.SWAN@tccd.edu](mailto:TONIA.SWAN@tccd.edu)>  
**Sent:** Saturday, January 19, 2019 11:54:16 AM  
**To:** Della,Lindsay J  
**Subject:** Permission

Hello Dr. Della!

I am a doctoral student at Texas Woman's University.

I was just wondering if I may have permission to use your *Leading by Example* scale for my dissertation project?

I was also wondering if there was a more updated version of the scale after 2010, and if so, would you be willing to share that with me?

Thank you so much for your valuable time and contribution to the literature!

~Toni