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Statement of Academic Integrity

I certify that I am the author of the work contained in this dissertation and that it represents my original research and conclusions. I pledge that apart from my committee, faculty, and other authorized support personnel and resources, I have received no assistance in developing the research, analysis, conclusions, or text contained in this document, nor has anyone written or provided any element of this work to me.

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HOOD COLLEGE



The Mediating Role of Organizational Climate in the Relationship between Leadership
Outcomes and Organizational Strategic Planning

A DISSERTATION

Submitted to the Faculty of the
Graduate School of Hood College
In partial fulfillment of the requirements
for the degree
Doctor of Organizational Leadership

by
Preetha Anna Abraham

Frederick, Maryland

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DOCTORAL COMMITTEE

The members of the committee appointed to examine the dissertation of Preetha Anna Abraham find that this dissertation fulfills the requirements and meets the standards of the Hood College Doctoral Program in Organizational Leadership and recommend that it be approved.

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DEDICATION

In memory of my father, I first dedicate this dissertation to him. He gave me the freedom to explore, taught me to persevere, and face challenges with confidence. Next, to my family for their unwavering support and words of encouragement during the doctoral journey.

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The Mediating Role of Organizational Climate in the Relationship between Leadership Outcomes and Organizational Strategic Planning

Preetha Anna Abraham, DOL

Committee Chair: Anita Jose, Ph.D.

ABSTRACT

The topic of leadership has been studied in many different ways, yet there exists very limited information on the impact of leadership style and outcomes on organizational climate and organizational strategic planning within health-science centers. The current study investigated the mediating effects of organizational climate on the relationship between leadership outcome and organizational strategic planning. Participants were employees working in a health-science center. Participants completed an online survey of standardized questions with sections for leadership style and outcomes, organizational climate, organizational strategic planning, and demographics. Data were analyzed in aggregate. Leadership outcomes were significantly correlated with several dimensions of organizational climate. Dimensions of organizational climate that indirectly mediated the relationship between leadership outcomes and organizational strategic planning were investigated. The common dimensions of organizational climate that indirectly mediated the relationship between all leadership outcomes and organizational strategic planning were communication, planning and decision-making, and innovation. Organizational leaders in health-science centers should thus foster an organizational climate that promotes these three dimensions by improving internal communication, developing capabilities for decision-making, and establishing effective innovation processes as part of strategic planning. The study makes important contributions to the field of organizational leadership and shows how to establish a clear, meaningful strategic planning process to engage employees and ensure success.

CHAPTER 1

INTRODUCTION

Health-science centers have been a primary source of innovative knowledge generation; therefore, understanding the key components of leadership style and how they impact strategic planning and organizational climate is vital. The stimulus of this study stems from the need to better understand how organizational leadership is perceived among a community of research academic scholars as well as the gap in leadership outcomes, climate, and strategic planning. Organizational analysts have arguably studied leadership more than any other process, yet leadership has remained poorly understood (Amanchukwu, Stanley, & Ololube, 2015). The differences between management and leadership have been studied extensively (Algahtani, 2014); however, there has been little evidence or consensus to support the differences reported (Azad et al., 2017). Leadership and management consist of exercising influence over people to achieve common goals (“What’s the Difference,” 2013). In an academic setting, leading and managing are inseparable because the processes work in tandem (Azad et al., 2017). Definitions of leadership differ based on manner and followers’ perceptions. Throughout the 20th century, leaders in research and education organizations borrowed from scholars who became identified with theories of scientific management, human relations, transformational leadership, and organizational learning (Heck & Hallinger, 2005). In this dissertation, academic research health-science centers are referred to as *health-science centers*, and *executive leadership* and *supervisors* are used synonymously.

I investigated health-science-center employees’ views of their supervisors’ or leaders’ leadership behaviors with respect to three prominent leadership styles—transformational,

transactional, and passive avoidant leadership—and three outcomes of leadership—effectiveness, extra effort, and satisfaction—as they relate to organizational climate and strategic planning.

Health-science centers are high performance drivers of better health (Smith, 2015). These institutions conduct research, develop scientists, and train medical students and residents. Unique aspects and attributes of leadership within health-science centers have not been explored. Efforts to foster greater collaboration and positive organizational climate among research scientists and academic educators within health-science universities have been essential strategies for improving organizational performance. Although leadership has been studied in different ways (Yukl, Gordon, & Taber, 2002), I could find very little information on the impact of leadership style and outcomes on organizational climate and organizational strategic planning frameworks within health-science centers.

The idea of strategic planning emerged in the 1960s and focused on the private sector for the purpose of improving current and future operations (Baile, 1998). Strategic planning for public organizations was introduced in the 1980s as a tool for organizational managers (McBain & Smith, 2010). Bryson (2010) presented strategic planning as a set of concepts, processes, and tools for shaping what an organization (or other entity) is, what it does, and why it does it. The foundation of strategic planning is related to the direction an organization will pursue to achieve its goals (Flemming, 2014).

The Government Performance and Results Act (GPRA) of 1993 was intended to improve government performance management (Brass, 2012). To accomplish GPRA objectives, agencies create strategic plans, performance plans, and conduct a gap analysis. The purpose of the act was to hold government accountable and provide all government agencies with established goals. GPRA required all federal agencies to set strategic goals in consultation with congress and key

stakeholders, develop plans for program activities, measure performance, and annually report to the president and congress on the degree to which they have met these goals. The top three elements of the GPRA required each government agency to develop a five-year strategic plan containing a mission statement and long-term results-oriented goals, to prepare an annual performance plan establishing the performance goals for each fiscal year, and to prepare an annual performance report reviewing the agency's success or failure at meeting the goals. The GPRA could not succeed without the strong commitment of top management, employees, and external stakeholders. The concepts of the GPRA work well only in a positive organizational climate that involves employees in the strategic planning, keeps agencies focused, and lays out sound principles in the agencies' basic approach to doing business (Obeng & Ugboro, 2008).

To make the most of results-oriented management, the staff at all levels of an organization must be skilled in strategic planning, performance measurement, and use of performance information in decision-making (General Accounting Office, 1996). Allowing employees to participate in the various stages of developing and assembling mission and vision statements will capture their interest and ownership in meeting organizational goals. Both federal and private health-science centers have played a key role in increasing medical knowledge and improving human health. However, their leaders have been faced with several challenges in sustaining research and academic collaborations and gaining adequate funds and training to continue participating in translational science (Hobin et al., 2012).

Studies have shown that leaders' communication plays an integral role in developing and sustaining employee commitment (Mayfield & Mayfield, 2002). Leadership is an important factor in productivity and professional advancement; however, staff members and researchers have rarely been trained in professional growth, and senior staff members have rarely had

opportunities to lead their groups (Wides, Mertz, Lindstaedt, & Brown, 2014). Health-science-center leaders and managers teach medical students, mentor doctoral students, conduct research, apply for funds, and collaborate with peers, yet they may not understand that dealing with and leading people can be difficult. They may not recognize that failure to provide a supportive and collegial work environment can harm the reputation of their department or center (Leiserson & McVinney, 2015). C. M. Cohen and Cohen (2005) showed that interpersonal difficulties in research and academia often stem from denial that problems exist. Although organizational diversity—in the form of employees with multicultural backgrounds and heterogeneous roles—may be seen as a competitive advantage, it can also lead to ambiguity if not properly managed and addressed (Cox & Blake, 1991). Inconsistent leadership and management can hinder the development of results-oriented cultures and the setting of outcome-oriented goals in organizations. Additionally, there has been an inadequate focus on collecting useful data on results and linking institutional, program, unit, and individual performance measurements and reward systems. A bottom-up implementation process that can yield documents to inform internal management decisions while providing accountability to external stakeholders would be extremely useful to address these problems. This creates a need for allocentric–selfless leaders who center their attention and actions on their staff members and others for whom they are responsible, rather than on themselves, to inspire others through clearly articulated organizational mission, vision, and shared goals.

Leadership Style and Outcomes

Hobbes wrote that people once lived in a state of nature, where there was a war of all against all (Hobbes & Curley, 1994). To avoid the constant worry of safety, they thought it might be more advantageous to band together—they agreed to give up freedom or independence for

security. Over the years, several leadership theories have evolved to explain leadership outcomes. These leadership theories have increased understanding of leadership styles. Although earlier theories on leadership rationalized the process, newer theories have emphasized emotions and values, which are necessary to understand how a leader can influence followers to achieve more and commit to objectives (Yukl, 1999). Well known theories of leadership include a two-factor conception of leaders' behaviors or traits; however, these dichotomies have provided limited insight into the full range of leadership styles and outcomes (Antonakis, Avolio, & Sivasubramaniam, 2003).

The full range leadership theory developed by Bass and Avolio predicts that supervisors and leaders can improve their leadership style to meet staff expectations. The constructs comprising the full range leadership theory denote three typologies of leadership behavior: transformational, transactional, and passive avoidant. These typologies are represented by nine distinct factors: idealized influence (attributes), idealized influence (behaviors), inspirational motivation, intellectual stimulation, individualized consideration, contingent reward, management by exception (active), management by exception (passive), and laissez-faire (Antonakis et al., 2003). Burns (1978) first introduced the concept of transformational leadership, and Bass (1985) extended it to explain how transformational leadership impacts followers' motivations and performance. Forty years later, the field of leadership has been focused not only on the leader but also on followers, peers, and work organization and has studied a wide-ranging group of individuals within public, private, and nonprofit organizations.

I focused on employees' views of their supervisors' or leaders' leadership behaviors within health-science centers. The focus was on three prominent leadership styles—transformational, transactional, and passive avoidant leadership behaviors—and three outcomes

of leadership—effectiveness, extra effort, and satisfaction—as they relate to organizational climate and strategic planning. Although the three leadership behaviors are different in application, researchers have shown that transformational leadership has significant strengths when compared to transactional and passive avoidant leadership (Hinkin & Schriesheim, 2008; Odumeru & Ogbonna, 2013); specifically, employees achieve organizational objectives through higher ideals and moral values because of proactive transformational leadership.

Organizational Climate

Interest in organizational climate has been attributed to Lewin's theory of motivation and group dynamics (Furnham & Goodstein, 1997; Komenić, Bazdan, & Agušaj, 2016), in which leadership style can create different group atmosphere. Organizational climate refers to employee perceptions about leaders' or supervisors' behaviors within a particular organization. The continued growth of an organization depends on employees' attitudes toward the abilities of leaders or supervisors to manage and retain the organization's productive workforce. Organizational climate is based on the principle that the well-being of an organization can be measured by employees' perceptions of their work environment (Kanten & Ulker, 2013). Organizational climate has been measured by aggregating individual scores and using the mean to represent the climate at that level (Patterson et al., 2005).

Leadership style and organizational climate are two implicitly linked variables (McMurray, Islam, Sarros, & Pirola-Merlo, 2012). The concepts of climate and leadership are directly connected in organizational function and process (Kozlowski & Doherty, 1989), whereby leadership process is an important system factor in the determination of climate. Although leaders' roles were historically viewed in the development of the climate of the organization, the focus has changed to how leadership affects organizational climate when the

transformational leadership style nurtures organizational motivation to perform in extraordinary ways (Pourbarkhordari, Zhou, & Pourkarimi, 2016).

The way that an organization's values are understood reflects employees' displays of certain behaviors. Employees also express different perceptions and opinions related to an organization's existing climate at different moments. Omolayo and Ajila (2012) showed that employees' satisfaction with their jobs depends on organizational variables such as working conditions and leadership that constitute part of the organizational climate. A leader's ability to implement the appropriate leadership style shapes the climate (Novac & Bratanov, 2014) of a positive and effective organization.

Organizational Strategic Planning

A strategic plan is an organizational management activity used to set priorities, focus energy and resources, strengthen operations, ensure that employees and other stakeholders are working toward common goals, establish agreement around intended outcomes, and assess and adjust the organization's direction in response to the changing environment (Allison & Kaye, 2011).

Researchers have shown that academic fields are considered as largely discrete units without well-articulated connections to overall institutional missions (J. S. Taylor, de Lourdes Machado, & Peterson, 2008). Universities have represented a very traditional work force consisting of employees, researchers, faculty, students, and other different types of personnel (Harman & Harman, 1996; J. S. Taylor et al., 2008). Because employee engagement plays a huge part in employees being champions of organization, it is critical that leaders create a sustainable organization by involving employees in the development of the organization's strategic

framework to create an advantageous future by balancing the opposing forces that disrupt alignment with the organization's mission.

One of the key factors that influence employees' perceptions of job involvement within the organization is organizational climate (Shadur, Kienzle, & Rodwell, 1999). A supportive organizational climate predicts higher organizational involvement among employees. The orchestration and involvement of employees during the planning process of an organization's strategic framework is crucial, because it gives individual employees context for how their work fits into the big picture. Therefore, organizational leaders need to involve employees with the organization's strategic-framework planning for employees to better understand the impact of their daily work and their larger role within the organization and how it relates to the community.

Statement of the Problem

Leadership behaviors of immediate supervisors or members of an organization's executive board are the most salient and representative of organizational actions, policies, or procedures that are likely to mediate subordinates' perceptions of organizational climate (O'Dea & Flin, 2003; Priyankara, Luo, Saeed, Nubour, & Jayasuriya, 2018). Additionally, academic research is very complex, with different types of students, academic staff, scientists, care-providers, and faculty that together represent a traditional work force (McGee, Saran, & Krulwich, 2012). Although the study of leadership has been ongoing for nearly a century, there has been little focus on how leadership style affects organizational climate and strategic planning within health-science centers. Understanding the collective effects of leadership style, leadership outcomes, organizational climate, and the organizational planning process would enhance employees' awareness and knowledge of their supervisors or executive leaders and their perceptions about the organization. This would enable leaders to better support the mission and

meet community obligations to educate future employees, researchers, and care providers within health-science centers.

Theoretical Framework

Guerrero, Fenwick, and Kong (2017) stated that one of the most influential leadership styles in health-care organizational management is transformational leadership. Understanding the leader–outcomes–climate–strategic planning mechanism necessitates a theoretical explanation of the mediating role of organizational climate between leadership outcomes and strategic planning. Avolio and Bass's (2004) theory on transformational leadership and outcomes defines leadership as a process that changes and transforms people; it is also concerned with emotions, values, ethics, standards, and long-term goals. Leadership style influences organizational processes and has been shown to play a crucial role in health-care centers (Aarons & Sommerfeld, 2012). The concept of leadership style has a strong impact on employees' organizational outcomes, such as effectiveness, extra effort, and satisfaction (Alloubani, Abdelhafiz, Abughalyun, Edris, & Almukhtar, 2015).

Organizational climate is briefly defined as the meanings people attach to interrelated bundles of experiences they have at work (Schneider, Ehrhart, & Macey, 2013). Climate perceptions mediate the relationship between organizational context and individual responses and provide a basis for behavior and affect; over time, perceptions can be aggregated to represent subunit or organizational-level climate constructs (Kozlowski & Doherty, 1989). Leadership has become an important precursor theme and the most influential factor leading to change in organizational climate.

Organizational strategic planning is the process of envisioning an organization's future and developing the necessary procedures and operations to achieve that future. Companies that

follow a clear and consistent strategy perform better than companies without strategic planning (Babafemi, 2015). Leaders need to step up and make proactive decisions about the directions that organizations should take and the goals they should strive to achieve (J. S. Taylor et al., 2008).

Thus, the notion that leadership styles and their outcomes influence organizational climate (Yukl & Michel, 2006) and organizational strategic planning (Rüzgar, 2018) is important. Addressing the mediating role of organizational climate between leadership outcomes and strategic planning in health-science centers becomes relevant (Figure 1). I examined leadership outcomes—extra effort, effectiveness, and satisfaction—and their associations with employees' perceptions of organizational climate, which affects organizational strategic planning.

Conceptual Framework

The conceptual framework guiding this quantitative study postulates that transformational leadership style yields positive leadership outcomes that are related to effective organizational strategic planning via positive organizational climate. The relationship is illustrated in Figure 2. The conceptual framework is based on three major variables - (a) transformational leadership outcome as independent variable, (b) organizational strategic planning as dependent variable, and (c) organizational climate as mediator between leadership outcome and strategic planning.

Transformational leadership is a leader's ability to recognize and encourage innovative thinking and create a shared sense of purpose among employees (Avolio & Bass, 2004). Researchers have found transformational leadership to be positively associated with workplace climate (Brimhall et al., 2017).

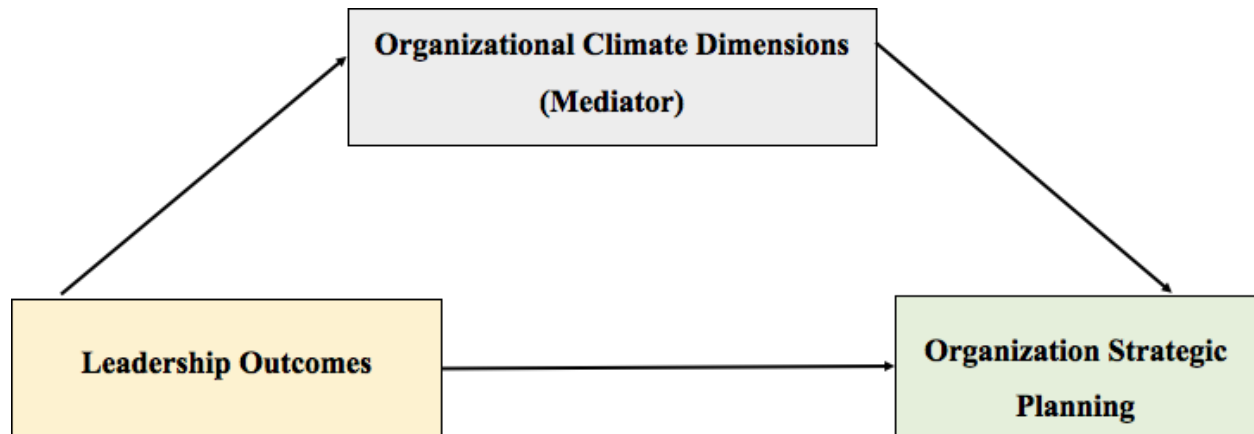


Figure 1. Mediation effects of organizational climate between the relationship of leadership outcome and organizational strategic planning.

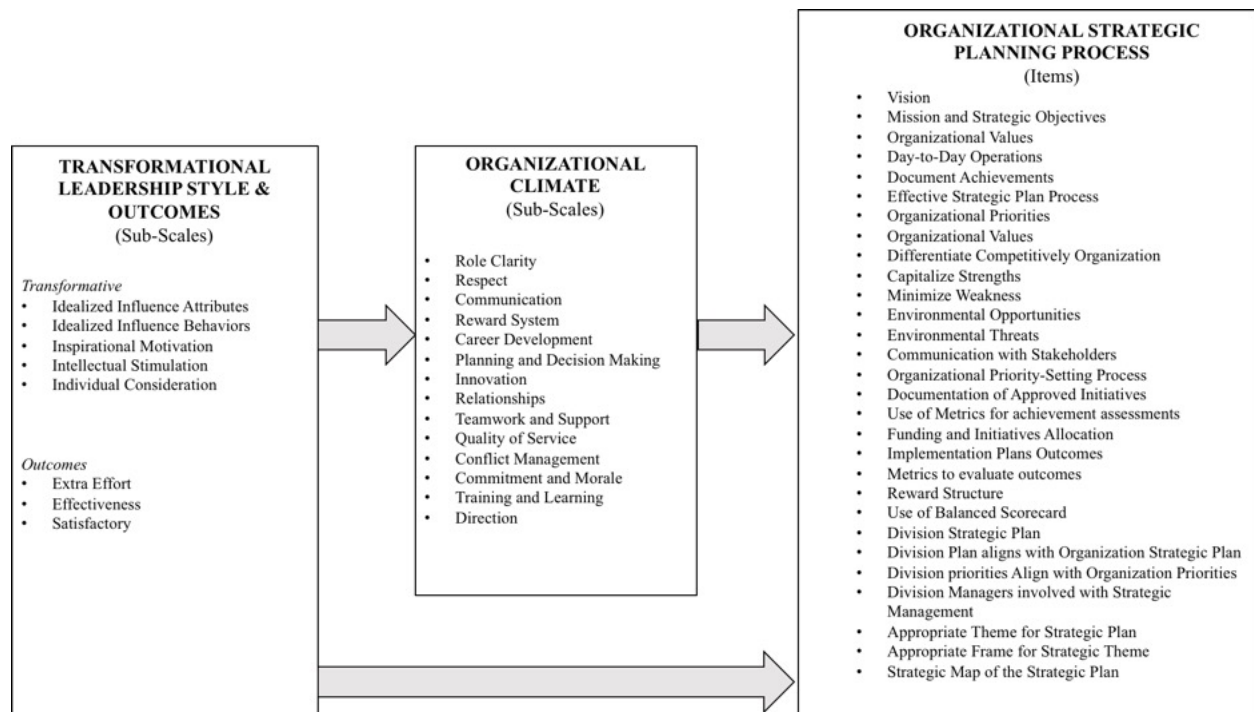


Figure 2. Transformational leadership styles and outcomes influence organizational climate and the organizational strategic planning process.

Additionally, effective leadership is perceived as an important component in operational strategic planning. According to Bass and Avolio (2000), transformational leadership directs organizational goals and increases organizational performance. To explore the relationship between leadership and organizational climate and strategic planning, I built on previous work

on the positive effects of transformational leadership on organizational outcomes (Avolio & Bass, 2004).

Purpose of the study

The purposes of this research were (a) to explore the relationship between leadership style, leadership outcomes, organizational climate, and organizational strategic planning; (b) to understand the relationship between organizational climate and organizational strategic planning; and (c) to understand the mediating role of organizational climate between leadership outcomes and organizational strategic planning within health-science centers.

Research Questions and Hypotheses

The research questions and the associated hypotheses that were tested in this study were as follows.

Research Question 1

RQ1: How do leadership styles (transformational, transactional, and passive avoidant) correlate with the different dimensions of organizational climate?

Hypothesis 1a: Transformational leadership style positively affects employees' perceptions of organizational climate.

Hypothesis 1b: Transactional leadership style negatively affects employees' perceptions of organizational climate.

Hypothesis 1c: Passive-avoidant leadership style negatively affects employees' perceptions of organizational climate.

Research Question 2

RQ2: How do leadership outcomes (extra effort, effectiveness, and satisfaction) correlate with the different dimensions of organizational climate?

Hypothesis 2a: Extra effort leadership outcome positively affects employees' perceptions of organizational climate.

Hypothesis 2b: Effectiveness leadership outcome positively affects employees' perceptions of organizational climate.

Hypothesis 2c: Satisfaction leadership outcome positively affects employees' perceptions of organizational climate.

Research Question 3

RQ3: What is the relationship between leadership styles and organizational strategic planning?

Hypothesis 3a: Transformational leadership style positively affects organizational strategic planning.

Hypothesis 3b: Transactional leadership style negatively affects organizational strategic planning.

Hypothesis 3c: Passive-avoidant leadership style negatively affects organizational strategic planning.

Research Question 4

RQ4: What is the relationship between leadership outcomes and organizational strategic planning?

Hypothesis 4a: Extra effort leadership outcome positively affects organizational strategic planning.

Hypothesis 4b: Effectiveness leadership outcome positively affects organizational strategic planning.

Hypothesis 4c: Satisfaction leadership outcome positively affects organizational strategic planning.

Research Question 5

RQ5: What is the relationship between the various dimensions of organizational climate and organizational strategic planning?

Hypothesis 5: Dimensions of organizational climate positively affect organizational strategic planning.

Research Question 6

RQ6: How do the various dimensions of organizational climate mediate the relationship between leadership outcomes and organizational strategic planning?

Hypothesis 6a: Organizational climate indirectly mediates the relationship between the extra effort leadership outcome and organizational strategic planning.

Hypothesis 6b: Organizational climate indirectly mediates the relationship between the effectiveness leadership outcome and organizational strategic planning.

Hypothesis 6c: Organizational climate indirectly mediates the relationship between the satisfaction leadership outcome and organizational strategic planning.

Overview of Methodology

The topic of organizational health-science research and academia leadership has been multidisciplinary and varied. However, a focus on leadership style and leadership outcomes coupled with organizational climate and strategic planning was new. Participants were employees of a health-science center. All study participants had to be able to speak and read English and sign the informed consent document online. Participants completed online standardized surveys. All information provided remained confidential and protected. No

identifying information, such as name, e-mail address, or internet protocol address, was collected at any time. Data were imported into SPSS (Version 24) for analysis. Data were analyzed in aggregate so that no individual participant or groups of participants could be identified. Data were stored in a password-protected electronic database maintained by me. The results of the study were used as a center evaluation to understand and improve the center that was studied.

Significance of the Study

The study was a significant contribution to the field of organizational leadership, with special relevance to those institutions that focus on academic research. Supervisory and executive-board leadership have direct effects on organizations. Leadership outcomes influence organizational values, climate, and employee perceptions. I examined three prominent leadership styles (transformational, transactional, and passive avoidant) and their outcomes on employees (extra effort, effectiveness, and satisfaction) as they relate to organizational climate and strategic planning. Understanding the correlations between leadership style, organizational climate, and organizational strategic planning would enhance understanding and knowledge. The findings could allow the creation of an environment for excellence and have a positive impact on students, scientists, faculty members, and educators.

Limitations of the Study

Every study has limitations (Leedy & Omrod, 2005), which are potential weaknesses or problems with the study identified by the researcher (Creswell, Hanson, Plano Clark, & Morales, 2007). A limitation is an uncontrollable threat to the internal validity of a study (Ellis & Levy, 2009). Stating the research limitations is vital to allow other researchers to replicate or expand a study (Creswell et al., 2007). I address the limitations of this study in the following sections.

Recruitment and Participant Characteristics

A key question in all center-evaluation studies is whether the groups being compared are equivalent in all respects other than the independent variables (Lyman & Campbell, 1996). Participants were recruited from a health-science center. Although such differences affect the external validity and generalizability of the findings to a larger population, the information gathered was novel within the field of health-science organizational leadership.

Survey Error

Surveys have a high probability of internal validity error due to nonresponse error (incomplete responses in the data obtained); measurement error (ways in which the constructs are assessed or measured); sampling error (random differences between samples selected), and coverage error (bias in the selection of participants).

Questionnaire Administration

My study was a center evaluation with data collected from employees working in a health-science center. The use of lengthy surveys to capture data from participants at one point in time potentially created survey-response burden for the participants. Because long assessments can reduce data quality, it may have been useful to consider planned missing data designs (Rhemtulla & Little, 2012) to improve the validity of data collection.

Definition of Key Terms

To ensure a common understanding of the terminology used in the study, the key terms are defined below.

Leadership is defined as a process whereby an individual influence a group of individuals to achieve a common goal (Northouse, 2010).

Transformational leadership is the process whereby a person engages with others and creates a connection that raises the level of motivation and morality in both the leader and follower (Antonakis et al., 2003). There are five main transformational factors: idealized attribute, idealized behavior, inspirational motivation, intellectual stimulation, and individual consideration.

Transactional leadership focuses on the exchanges that occur between leaders and followers (Antonakis et al., 2003). There are two main transactional factors: contingent reward and active management by exception. Demonstrating transactional leadership means that followers agree with, accept, or comply with the leader in exchange for praise, rewards, resources, or the avoidance of disciplinary action (Bass, Avolio, Jung, & Berson, 2003).

Passive-avoidant leadership: A passive-avoidant leader is one who takes a “hands-off, let-things-ride” approach. Such a leader abdicates responsibility, delays decisions, gives no feedback, and makes little effort to help followers satisfy their needs (Antonakis et al., 2003). The two main passive-avoidant factors are passive management by exception and laissez-faire.

Extra effort refers to the extent to which leaders get others to do more than they expected to do, heighten others’ desire to succeed, and increase others’ willingness to try harder (Avolio & Bass, 2004).

Effectiveness of a leader is an outcome perceived (Effectiveness of the leader as perceived outcome by the interaction of situational variables, namely, leader’s authority, task, the organizational environment, and the external environment (Avolio & Bass, 2004).

Satisfaction is an outcome of using methods of leadership that are satisfying and working with others in a satisfactory way as perceived by employees (Avolio & Bass, 2004).

Organizational climate is a psychological state strongly affected by organizational conditions such as systems, structures, and managerial behavior. Organizational climate is the perception of how things are in the organizational environment and is composed of 14 elements or dimensions (Furnham & Goodstein, 1997).

Organizational strategic planning is a pattern of purposes, policies, programs, projects, actions, decisions, or resource allocations that describes what an organization is, what it does, and why it does it (Bryson, 2018).

Organization of the Dissertation

The dissertation is divided into five chapters as follows.

Chapter 1: Introduction

Chapter 1 began with an introduction of the topic highlighting the historical background of the research. The chapter continued with a statement of the problem, the theoretical and conceptual frameworks used, the purpose of the study, and the research questions and hypotheses. After defining terms used in the dissertation, the chapter concluded with a discussion of the methodology used and the significance and limitations of the study.

Chapter 2: Review of Literature

Chapter 2 presents a review of the literature related to leadership style that examines traditional theories of leadership with a focus on transformational, transactional, and passive-avoidant leadership styles and leadership outcomes such as extra effort, effectiveness, and satisfaction. The literature related to organizational climate and organizational strategic planning are also reviewed. The chapter concludes by integrating all of these key factors and showing the gap in research that exists between leadership outcomes and their effect on organizational climate and strategic planning.

Chapter 3: Research Methodology

Chapter 3 describes the sample design; consent process; research design; data collection; quantitative instruments; data management and storage; protection of participants privacy, confidentiality, and information; and data analyses.

Chapter 4: Results

Chapter 4 presents the results of the quantitative analysis with respect to the research questions and hypotheses. Descriptive statistics for the sample are presented as well as the results of correlational analyses for relationships between leadership style, outcome, organizational climate, and organizational strategic planning. The chapter also presents results of mediation analyses for the indirect effects of organizational climate on leadership outcome and organizational strategic planning.

Chapter 5: Discussions, Implications, and Conclusions

Chapter 5 discusses the key findings of the study and attempts to integrate these findings with the literature. Additional limitations of the study and implications for further research are also discussed.

CHAPTER 2

REVIEW OF LITERATURE

The purposes of this research were (a) to explore the relationship between leadership style, leadership outcomes, organizational climate, and organizational strategic planning; (b) to understand the relationship between organizational climate and organizational strategic framework planning; and (c) to understand the mediating role of organizational climate on leadership outcomes and organizational strategic planning within health-science centers.

Health-science centers are important institutions within the health-care sector (Detsky, 2011). Academic medicine leaders have been selected on the basis of success in the core activities of the centers, which are primarily research, education, and patient care (Detsky, 2011). While rich in expert subject matter knowledge, health-science center leaders have lacked experience in administration and leadership (C. A. Taylor, Taylor, & Stoller, 2008). My focus on leadership style and leadership outcomes coupled with the dimensions of organizational climate, and organizational strategic planning were new within health-science-center research. Research and academic professors must develop skills to be effective leaders, to develop strong teams, and to achieve clearly articulated shared goals. Leaders within university centers may be confronted with unique challenges due to the diversity of staff roles at all levels and differences in the range of academic degrees. Leadership outcomes are critical elements that formulate organizational climate and organizational strategic planning. This chapter presents a review of literature related to traditional theories of leadership; the outcomes of three prominent leadership styles (transformational, transactional, and passive avoidant); how leadership behaviors impact various dimensions of organizational climate; and whether leadership style, outcomes, and specific dimensions of organizational climate influence organizational strategic planning.

Leadership Styles and Outcomes

Early theories of leadership focused on certain traits that make leaders. The great man theory of the 1840s assumes that the traits of leaders are intrinsic—leaders are born not made (Ololube, Dudafa, Uriah, & Agbor, 2013). In the 1930s and 1940s, trait-leadership theorists believed that people are either born or made with certain qualities that make them excel in leadership roles (Horner, 1997). The focus was on a characteristic or a combination of mental, physical, and social characteristics that are common among leaders (Stogdill, 1948). This marked the beginning of a shift in the definition of leadership from leaders being born to leaders having certain traits for potential leadership.

As the long lists of traits and characteristics in trait theories were examined, it became evident that neither traits nor characteristics were powerful predictors of leadership across all situations. From the 1940s to the 1970s, behavioral theories emerged. Interactive theories, such as personal-situation theories and interaction–expectation theories, focused on the behaviors of leaders as opposed to their personal characteristics. These theories divide leaders into two categories: those concerned about people and those concerned about tasks (Blake & Mouton, 1982). From the late 1950s to the 1970s, the leader interaction theory and the contingency leadership theory emerged, which propose that leaders may not be effective unless they can adapt their leadership style to meet the demands of the environment (Fiedler, 1967; Lorsch, 2010). This concept was a major insight, because it raised the possibility that leadership and performance are different in every situation (Horner, 1997). In other words, a style of leadership that works well in some environments may not be efficient in others. Behaviors are driven by perceptions and interpretations of situations, thus momentary leadership behavior in a situation results from the

meaning that the leader attributes to the situation and the environment in a certain context (Mischel & Shoda, 1995).

By the late 1970s, leadership theories had started to move away from the specific perspectives of the leader and toward exchanges between followers and leaders. One of these new leadership theories was full range leadership theory, which includes three typologies of leadership behavior: transformational, transactional, and passive-avoidant; these three typologies are represented by nine distinct factors (Antonakis et al., 2003). In the 1970s, transactional leadership theories (also known as exchange theories of leadership) emerged, characterized by an environment in which individual and organizational goals are in a mutually reinforcing beneficial relationship; an associated theory is leader-member exchange (Burns, 1978; Liden, Wayne, & Stilwell, 1993). Emphasis was placed on in-groups having stronger and more beneficial relationships than out-groups, in which relationships are very formal.

Bass and Avolio (1994) considered transactional leadership as a type of contingent-reward leadership. Transactional leadership focuses on the role of supervision and staff performance within an organization in which the leader tacitly motivates employees through both rewards and retribution. Transactional leaders focus on the process and on contingent rewards; relationships are based on temporary exchange of success. Transactional leaders stress that specific tasks are more managerial in style, directive, and action oriented. Transactional leadership style comprises two components: contingent reward and active management by exception. Contingent reward is the result of an exchange between leaders and followers on what must be done and what the payoff will be for the people doing it. Active management by exception involves corrective criticism, negative feedback, and negative reinforcement. In the active form, leaders watch followers closely for mistakes or rule violations and then take

corrective action (Zhu, Sosik, Riggio, & Yang, 2012). Transactional leaders neither individualize the needs of followers nor focus on personal development. Transactional leaders are influential because it is in the best interests of the followers to do what the leaders want (Anderson & Sun, 2017).

Non-leadership or passive-avoidant leadership is the leadership style of those who avoid helping employees satisfy their needs, delay decisions, and abdicate responsibility (Xirasagar, 2008). Passive-avoidant leadership styles are of two kinds: passive management by exception and laissez-faire. A leader using passive management by exception intervenes only after standards have not been met or problems have arisen. Skogstad, Einarsen, Torsheim, Aasland, and Hetland (2007) cited the work of Lewin, Lippitt, and White (1939) on the concept of laissez-faire leadership, in which the leader physically occupies the leadership position but has abdicated its responsibilities or duties and is thereby represented as an absence of leadership. Contrary to the belief that leaders' unresponsiveness is desirable within an organization, empirical evidence suggests that this approach can be destructive, because decisions are often delayed; feedback, rewards, and involvement are absent; and there is no attempt to motivate staff members or to recognize and satisfy their needs (Skogstad et al., 2007). Laissez-faire leaders provide basic but minimal information and resources (Von Bergen & Bressler, 2014), avoid responsibility, avoid responding to problems, are absent when needed, fail to follow up, and resist expressing views (Antonakis et al., 2003).

Downton (1973) was the first to coin the term *transformational leadership*. Transformational leadership theories emerged in the 1970s to describe a process that engages a person with others to create a connection that results in increased motivation and morality in both followers and leaders (Avolio & Yammarino, 2013). Transformational leadership raises

employees' levels of consciousness about the value of the desired outcomes and the methods needed to produce those outcomes (Burns, 1978). The concept of transformational leadership has gained wide popularity among leadership researchers during the past decade because of its successful approach to motivating followers compared to other leadership styles (Jung, Chow, & Wu, 2003). The theory elevates employees from lower levels of concern for safety and security to higher levels of achievement and self-actualization (McCleskey, 2014). Transformational leadership changes and transforms people and is concerned with emotions, values, ethics, standards, and long-term goals (Northouse, 2010). Odumeru and Ogbonna (2013) identified four factors of the transformational leadership style: charisma or idealized influence (the attributes of a leader inspire followers to take their leader as a role model), inspirational motivation (the leader targets the principle of organizational existence and aligns followers to the organizational mission and vision), intellectual stimulation (the leader stimulates followers, accepts challenges as part of his or her job, maintains emotional balance, and rationally deals with complex problems), and individualized consideration (leaders provide personal and individual attention to individuals in the workplace). Transformational leaders exhibit each of these four factors to varying degrees to bring about desired organizational outcomes through their followers (McCleskey, 2014). Through transformational leadership, goals and objectives are established to develop a collective leadership group, which enables the existence of self-directed teams through a development-orientation shift (Avolio & Bass, 2004).

Bass and Avolio (2010) described the four factors in the following way. Idealized influence is an emotional component of leadership: It describes leaders who act as strong role models for followers, so that followers want to emulate them because they identify with them. Idealized influence has two components: an attributional component that refers to the attribution

of leaders made by followers based on perceptions they have of the leaders and a behavioral component that reflects followers' observations of leader behavior. Inspirational leaders communicate high expectations to followers and inspire them to become committed to—and be a part of—the shared vision of the organization. Intellectual stimulation includes the style of leaders who stimulate followers to be creative and innovative to challenge themselves. Individualized consideration describes the style of leaders who provide a supportive climate in which they listen carefully to the individual needs of followers and then delegate to help followers grow through their personal challenges (Northouse, 2010). Transformational leaders encourage others to develop and perform to achieve the mission of the organization. By this process, employees' motivational levels are raised, their self-efficacy is enhanced, and their willingness to accept extraordinary challenges is much greater.

There are three popular leadership outcome measures that assess leadership style. The first outcome measure is extra effort, which is the willingness of employees to exert extra effort to accomplish tasks (Ahmad & Akhtaruzamman, 2017; Avolio & Bass, 2004). Extra effort is the extent to which leaders get others to do more than they are expected to do and increase willingness to try harder (Carlton, Holsinger, Riddell, & Bush, 2015). The second outcome measure is effectiveness, which is the degree of leaders' effectiveness in the eyes of their employees (Ahmad & Akhtaruzamman, 2017; Avolio & Bass, 2004). Effective leaders represent their group to a higher level by leading the group effectively and by meeting organizational requirements (Carlton et al., 2015). The third outcome measure is leadership satisfaction, which is employees' level of satisfaction regarding the leaders' capabilities (Ahmad & Akhtaruzamman, 2017; Avolio & Bass, 2004). Leadership satisfaction includes leaders working with others in a satisfactory way (Carlton et al., 2015).

Researchers have stopped treating leadership as a monolithic characteristic: instead, they have depicted it in various models as dyadic, shared, relational, strategic, global, and a social-dynamic complex (Avolio, Walumba, & Weber, 2009). Most definitions of leadership reflect the assumption that it involves a process whereby intentional influence is exerted over other people to guide, structure, and facilitate activities and relationships in a group or organization (Yukl & Mahsud, 2010). Others have continued to seek beyond the traditional theories of leadership to more complex levels of shared or collective leadership in which power is distributed among individuals in a group to achieve organizational goals (Carson, Tesluk, & Marrone, 2007; Day, Gronn & Salas, 2004; Pearce & Conger, 2003).

Leaders of health-science centers have often been chosen based on their scientific knowledge and educational background rather than on their demonstrated leadership and management skills (Detsky, 2011). Institutional department heads and center directors should have effective organizational skills and team-building experience to make sound and sustainable decisions. It is unclear to what extent health-science centers have operated based on clear goals from institutional and unit-based leaders who have set up organizational strategies.

Organizational Climate, Strategic Planning, and Leadership

Lewin et al. (1939) introduced the concept of organizational climate. They conceived climate as the key functional link between the person and the environment (Kozlowski & Doherty, 1989). Although organizational culture and climate both describe employees' experiences of the organization, these terms are distinct and are not interchangeable. Reichers and Schneider (1990) defined organizational climate as shared perceptions of organizational policies, practices, and procedures. Schein (2000) noted that organizational climate reflects each employee's perception of, and emotional responses to, his or her work environment. Aarons and

Sawitzky (2006) defined organizational climate as a global impression of an individual's organization and the personal impact of the work environment, which influences the individual's work behaviors and job-related attitudes. Thus, organizational climate is a psychological state strongly affected by organizational conditions such as systems, structures, and managerial behavior (Furnham & Goodstein, 1997).

Komenić et al. (2016) stated that there are three basic types of organizational climate: people-oriented, rule-oriented, and goal-oriented. The people-oriented organizational climate is the type of environment in which satisfaction of the employee is paramount and employees experience favorable working conditions. The rule-oriented organizational climate is based on tradition and a strong set of rules that are valued and are not to be changed. The goal-oriented organizational climate creates an atmosphere in which employees are expected to attain organizational goals.

Schneider et al. (2013) briefly defined organizational climate as the meanings people attach to interrelated bundles of experiences they have at work. Although climate has been consistently described as employees' perceptions of their organizations, most empirical researchers have used aggregate analysis of individual scores at an organizational or workgroup level to measure the climate at that level (Patterson et al., 2005). Traditionally, only leaders and supervisors responded to organizational climate surveys; however, employee responses regarding organizational climate provided a more inclusive perspective (Patterson et al., 2005). Griffin and Mathieu (1997) stated that organizational climate is correlated with group process variables across organizational levels.

A healthy organizational climate is the result of factors influencing employees' perceptions, including leadership quality, the decision-making process, and recognition of

employees' efforts (Kubendran, Naji, & Muthukumar, 2013). Climate perceptions mediate the relationship between the organizational context and individual responses, providing a basis for behavior and affect; over time, perceptions can be aggregated to represent subunit- or organizational-level climate constructs (Kozlowski & Doherty, 1989).

Kuenzi and Schminke (2009) organized the effects of organizational climate according to specific outcomes: at the individual level, such as job attitudes and individual behaviors; at the unit level of performance, such as financial performance and firm achievement of goals; at facet-specific outcomes, such as legal compliance, instrumental satisfaction, self-expression, and internalized values; with a focus on involvement, such as participation, shared support, and group effect; with a focus on development, such as innovation, creativity, and training; and with a focus on core operations, such as service and safety.

Results from a study done by Burton, Lauridsen, and Obel (2004) show that alignment of employees' perceptions towards organizational strategic management will improve organizational climate and overall performance as well as misalignment would yield negative return on assets. Lack of top management support and conducive organizational climate impedes strategic planning (Mintzberg, 1994).

Leadership has become an important precursor theme and the most influential factor leading to an organizational climate change. A leader's powerful display of mannerisms conveys the values of an organization that sets the tone for the organizational climate (Holloway, 2012). Organizational climate relates to various ways employees make sense out of their environment (Reichers & Schneider, 1990). Parboteeah et al. (2010) suggested that managers can utilize many practices to embed the priorities and values they hold in the day-to-day decision-making of their subordinates, which in turn creates the climate of the organization. Thus, poor communication

and empowerment could be critical practices for managing organizational climates (Parboteeah et al., 2010). Gil, Rico, Alcover, and Barrasa (2005) and Kozlowski and Doherty (1989) observed that varying leadership styles influenced perceptions of climate and the behavioral responses of employees. Their results showed that team climate as a group process mediated the relationship between change-oriented leadership and team performance.

Because organizational climate is a psychological perception of how things are in the organizational environment, it is composed of a variety of organizational elements or dimensions. Nevertheless, the climate itself impacts both individual and group performance. Holloway (2012) found that there was a negative and insignificant correlation between task-oriented leadership behaviors and the organizational climate structural dimensions and a positive and insignificant correlation between task-oriented leadership behaviors and organizational climate responsibility dimensions. However, the study also showed a positive and significant correlation between relations-oriented leadership behaviors and the organizational climate warmth dimension. Other researchers have found positive or negative correlations between leadership style and organizational performance measures, depending on the variables selected (Dele, Nanle, & Abimbola, 2015). The two components of ethical leadership are the moral persons component (integrity, concern for others, justice, and trustworthiness) and the moral manager component (communicating, rewarding, punishing, emphasizing ethical standards, and role modeling ethical behavior; Mayer, Kuenzi, & Greenbaum, 2010). Thus, organizational climate could act as a mediator variable that serves as an indirect link between leadership styles and outcomes and other organizational factors.

I found several instruments measuring organizational climate based on a variety of models, such as Litwin and Stringer's instrument (Yoo, Huang, & Lee, 2012) that measures 9

factors, including responsibility, challenges, rewards, relationships, cooperation, conflicts, identity, and standards, and the Sbragia instrument (Wu & Lin, 2011) that measures the 13 factors of state of tension, focus on participation, supervisory proximity, human consideration, autonomy present, prestige obtained, existing tolerance, perceived clarity, predominant justice, progress conditions, logistical support, recognition provided, and form of control. However, several of them are limited by poor internal reliability and weak validation data. Additionally, there exist different dimensions of organizational climate, as discussed above. I used the Organizational Climate Questionnaire (OCQ, Furnham & Goodstein, 1997). The OCQ has been used in multiple studies to investigate the impact of leadership styles, organizational citizen behavior, commitment, and work locus of control (Furnham & Drakeley, 1993; McMurray, Scott, & Pace, 2004; Singh & Padmanabhan, 2017). The OCQ consists of 108 items measuring the 14 different climate dimensions of role clarity, respect, communication, reward systems, career development, planning and decision-making, innovation, relationships, teamwork and support, quality of service, conflict management, commitment and morale, training and learning, and future directions. Additionally, the OCQ captures variations and fluctuations in structures, systems, and managerial actions and behaviors affecting climate by having an impact on both individual and group performance (Furnham & Goodstein, 1997).

Organizational Strategic Planning and Leadership

The terms *strategic management* and *strategic planning* have been used synonymously: The latter term is used more often in the business world, whereas the former is used more in academia (David & David, 2015). The term *strategic planning* originated in the 1950s. Strategic planning or management consists of three stages: strategy formulation, strategy implementation, and strategy evaluation (David & David, 2015). In some situations, strategic management refers

to strategy formulation, implementation, and evaluation, and strategic planning refers only to strategy formulation. In essence, a strategic plan is a coordinated and systematic way to develop a course of direction for the company.

Strategic concepts and practices emerged first in the private sector and later, in the late 1970s, migrated to the public sector (Alford & Greve, 2017). Although unheard of within government in the United States in 1980, strategic planning has become pervasive in the public sector (Poister, 2010). The GPRA of 1993 was designed to improve government performance management and required government agencies to create strategic plans, performance plans, and conduct a gap analysis to accomplish this objective. Organizational strategic planning is the process of envisioning an organization's future and developing the necessary procedures and operations to achieve that future. The strategic planning process is dynamic and continuous; it allows an organization to be proactive in shaping its own future. Strategic planning is important because it aligns employees with the organization, vision, mission, and goals. It maximizes organizational resources to highlight priority activities, thereby avoiding waste of resources. Strategic planning also keeps track of organizational accountability for deliverables.

In an innovation-driven economy, having a skill set and the ability to generate ideas is a managerial priority (Bouhali, Mekdad, Lebsir, & Ferkha, 2015). Along with clearly articulating where the organization is heading and the actions needed to make progress, effective strategic planning also measures the success of the organization's performance. The balanced scorecard is a strategic planning and management system that organizations use to communicate what they are trying to accomplish, align and prioritize organizational goals, and monitor organization progress. When strategic planning is focused on an organization, it is likely that most of the key decision makers will be insiders; in contrast, when strategic planning is focused on a function

that crosses organizational or governmental boundaries, almost all the key decision makers will be from outside (Bryson, 2018).

Fairholm (2009) stated that strategic planning relies heavily on concepts such as organizational mission, objectives, long-term and short-term goals, metrics, and performance measurements that are essential to good organizational management. A fully participatory strategic planning process is encouraged to create great organizational mission, vision, and values, because it defines the organization's future and competitive advantage and establishes a tiered plan to close the gap between the present and the future.

Leaders play a vital role in the strategic planning process (Jabbar & Hussein, 2017). Leaders need to make proactive decisions about the directions their organizations should take and the goals they should strive to achieve (J. S. Taylor et al., 2008). A strategy-making framework moves into strategic thinking, focuses on the desired future for the institution (vision), and then merges these factors into a strategic planning process (which ultimately creates institutional alignment; Liedtka, 1998). Cothran and Clouser (2006) used Bryson's definition that strategic planning is a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does, and why it does it. Strategic leadership is the ability of a leader to anticipate, prepare for, and position for the future (Gakenia, Katuse, & Kiriri, 2017). Strategies by themselves do not add value unless leaders properly implement the strategic plan, whether it be in a for-profit or not-for-profit organization (Chebet, 2017).

Good leaders provide dynamic strategic management that clarifies the ultimate aim and purpose of the organization, provides a clear vision of the desired future, finds new ways to leverage core competencies and competitive advantage, aligns the future desired state with current operations and business processes, provides strategic constancy over time, and

communicates clear expectations and priorities (Karaman, Kök, Hasiloglu, & Rivera, 2008).

Strategic planning is a disciplined effort by organizational leaders to produce decisions and actions that shape and guide what an organization is and what it does by assessing internal and external strengths, weaknesses, opportunities, and threats.

The strategic planning process needs to include two specific characteristics in order to become an integrative mechanism: employees must participate in the strategic planning process and top management must communicate the resulting goals and priorities (Ketokivi & Castaner, 2004; Mintzberg, 1994). Ketokivi and Castaner (2004) argued that strategic planning often fails because it is confined to the top management team or planning experts and excludes organizational members who are responsible for implementation and who have detailed information about the organization. Coch and French (1948) pioneered the study of employee participation in workplace. In a participative strategic-planning process, top management usually form a number of teams of employees from different units and hierarchical levels in order to analyze the implementation of past strategies and the organizational environment and propose goals (Elbanna, 2008).

Bhatti and Qureshi (2007) stated that including employees in development of the mission statement and establishment of policies and procedures can improve productivity, morale, and satisfaction. Allowing employees to participate in the various stages of development of the mission and vision statements captures their interest and ownership (Ali, 2014). Furthermore, other researchers have shown that employee participation in organizational decision-making enhances their sense of belonging and gives them a better understanding of organizational goals (Han, Chiang, & Chang, 2010; Tannenbaum, Weschler, & Massarik, 2013). When people in an

organization have a better understanding of their real purpose and why and what they do to meet the organization's goals, their actions seem reasonable and sensible (Fairholm, 2009).

The key elements of leadership within health-science centers depend largely on maintaining an environment in which research and academic staff can flourish. Adair (1988) defined these leadership elements to be achieving tasks, developing the individual, and building and maintaining the team, which are mutually dependent and essential to the overall leadership role. Academic research leaders should leverage integrative-style efforts to orchestrate staff members and improve the relationships among them. Resilient leadership in universities can improve research outcomes by improving staff enthusiasm and increasing commitment to research (Ball, 2007). Transformational leadership, goals, and objectives are established to develop a collective leadership group, thereby enabling self-directed teams through a development-orientation shift (Avolio & Bass, 2004).

Summary

To summarize, the three main areas covered in this literature review were leadership styles and outcomes, organizational climate, and organizational strategic planning, with a focus on understanding the associations between leadership style and outcomes with organizational climate and strategic planning. Table 1 depicts the major literature constructs that influenced my study.

Table 1

Major Literature Constructs That Influenced the Study

Study	Research field	Research contributions
Antonakis, Avolio, & Sivasubramaniam, 2003	Leadership theories	Full range leadership theory, which includes 3 typologies of leadership behavior: transformational, transactional, and laissez-faire, which are themselves represented by 9 distinct factors
Avolio & Bass, 2004	Leadership style	Transactional leadership style: contingent reward and management by exception (active)
Avolio & Bass, 2004	Leadership style	Passive-avoidant leadership style: management by exception (passive) and Laissez Faire
Avolio & Bass, 2004	Leadership style	Transformational leadership style: inspirational motivation, idealized influence (behavior, attributed), intellectual stimulation, and individualized consideration
Avolio & Bass, 2004	Leadership outcome	Extra effort, effectiveness, satisfaction
Detsky, 2011	Health-science center	Leadership and management skills
Schein, 2000	Organizational climate	Employee perception and emotional responses of the work environment
Furnham & Goodstein, 1997	Organizational climate	14 dimensions of organizational climate
David & David, 2015	Strategic management and strategic planning	3 stages of strategic management: strategy formulation, strategy implementation, and strategy evaluation
Fairholm, 2009	Strategic planning	Concepts of strategic planning
Mintzberg, 1994	Strategic planning	2 integrative mechanisms: employee and top management

CHAPTER 3

RESEARCH METHODOLOGY

Leaders within health-science centers play a vital role because the centers are important organizations within the health care sector. Health science center leaders need to be properly trained to lead staff members and researchers. Organizational climate is a psychological perception that includes a variety of elements and dimensions from an organizational environment. Organizational strategic planning is an important process that aligns employees with the organization and its vision, mission, and goals. Little has been discovered about how leadership style affects organizational climate and strategic planning within the health-science center. I examined three prominent leadership styles (transformational, transactional, and passive avoidant) and their outcomes on employees (extra effort, effectiveness, and satisfaction) as they relate to organizational climate and strategic planning in a health-science center. This chapter is divided into eight major sections that address the research design, population and sample design, informed consent, data collection, instruments, participant protection, data analyses, and a summary.

Research Design

Center evaluation used cross-sectional surveys in which data were collected at one point in time point from the sample. I used correlation to determine whether a relationship existed between leadership style, leadership outcomes organizational climate, and organizational strategic planning.

Population and Sample Design

The study was cross-sectional study and did not include an experimental component. Participants consisted of employees from a health-science center for evaluation of the center.

Approximately 70 employees worked at the center. Responses to the online survey were received from 56 employees. In order to minimize missing data, if a participant did not respond to all of the subscale items but did respond to at least two-thirds of the subscale items, then his or her final score was imputed based on the available responses. Pairwise (rather than listwise) missing samples were used (Peugh & Enders, 2004). Listwise deletion removes all data for a case that has one or more missing values, but pairwise deletion attempts to minimize loss and maximize data available by deleting data on an analysis-by-analysis basis, thereby increasing power in subsequent analyses. The final sample size for the analyses ranged from 41–48.

Informed Consent

Participants completed online consent forms written in lay terms. The online consent form provided a detailed description of the purpose and procedures of the study. A copy of the consent form along with the survey questions administered online are provided in Appendix A (MLQ questions 12 to 56 are removed from the appendix due to copyright policies).

Participation in the study was voluntary. All study participants had to speak and read English and sign the informed consent document online if they wished to participate in the study. No one who was illiterate or unable to consent themselves could take part in the study. Participants were neither coerced to take part in the study nor penalized or denied any of their existing benefits if they chose not to take part in the study or if they wished to withdraw from the study after consenting. There were no known risks to participation.

Data Collection

I conducted a pilot study to ensure the quality and clarity of the survey items prior to the distribution of the surveys online. I conducted the pilot study on volunteers who worked at the same institute but at a different center. I used feedback from the pilot study to make clarifications

and adjustments prior to wider administration of the survey. There were no reported problems with regard to the question design or clarity. For the research study, I administered online surveys through SurveyMonkey. I distributed the SurveyMonkey link through the health-science center's email listserv to potential participants. Those who were interested in participating in the center evaluation accessed the SurveyMonkey link. Participants consisted of employees and supervisors from the center. The survey had 76 questions, and participants could skip any questions that they chose not to answer. Scores were imputed based on the responses to the scale. Participants who responded to at least two-thirds of the survey were included in the final analyses. The approximate time required to complete the survey was 30–45 minutes.

Instruments

The demographics questionnaire included typical demographic questions such as age, gender, ethnicity, years of employment, roles, and working hours. Supervisor approachability and availability information was also collected. The questionnaire took approximately 5 minutes to complete.

The OCQ, developed by Furnham and Goodstein (1997), is a 108-item questionnaire that uses a 7-point Likert-type scale to assess the 14 climate dimensions of role clarity, respect, communication, reward systems, career development, planning and decision-making, innovation, relationships, teamwork and support, quality of service, conflict management, commitment and morale, training and learning, and direction. The instrument provides two scores for each of the 14 dimensions: agreement (employee satisfaction with how things are done) and importance (the degree to which respondents believe that the item is a significant aspect of the way in which work is performed in the organization). To avoid overburdening participants with questions, I measured and analyzed only the agreement scores (54 items). Items were modified for clarity.

For example, the original survey consisted of terms like *company or department*, which were changed to *program or center*. The possible responses were 1 (*strongly disagree*), 2 (*disagree*), 3 (*slightly disagree*), 4 (*neither agree nor disagree*), 5 (*slightly agree*), 6 (*agree*), and 7 (*strongly agree*). Dimensions of organizational climate were assessed to see if they indirectly mediated the relationships between leadership style, leadership outcome, and organizational strategic planning. Cronbach's alpha values measuring internal consistency for each of the 14 OCQ dimensions ranged between .60 and .86 ($M = .77$) for agreement and .70 to .88 ($M = .78$) for importance, respectively. Wiley Global granted permission to use this survey. The questionnaire took approximately 15 minutes to complete.

The Multifactor Leadership Questionnaire (MLQ)—Rater Form, developed by Avolio and Bass (2004), was used to measure leadership style. Mind Garden, Inc. granted permission to use this questionnaire for data collection, analysis, and publication. The MLQ subscales consist of 45 descriptive statements. The MLQ has been used extensively in field and laboratory research to study transformational, transactional, and passive-avoidant leadership styles. In the current study, the MLQ was on a 4-point Likert scale, on which participants indicated the extent to which the items represented their supervisors' leadership styles and the outcomes of leadership behavior. The possible responses were 0 (*not at all*), 1 (*once in a while*), 2 (*fairly often*), and 3 (*frequently, if not always*). Reliability of the scale was evaluated by using three approaches: internal consistency (Cronbach's alpha), interrater agreement, and test-retest reliability (Avolio & Bass, 2004). The MLQ scores are average scores for the items on the scale. The questionnaire took approximately 10 minutes to complete.

The Organization Strategic Framework Planning Process (OSFPP) consists of 29 items that provide employees with an opportunity to state whether leadership involves them in

organizational strategic planning. The possible responses were 1 (*strongly agree*), 2 (*disagree*), 3 (*neutral*), 4 (*agree*), and 5 (*strongly agree*). Face- and construct-validity analyses were conducted by using the expert validation method. The survey was constructed by a professor who has been teaching at Master of Business Administration level in a strategic planning and implementation class for over 22 years. Cronbach's alpha measuring internal consistency of the scale items was .96. Total scores were determined by those of the items. The questionnaire took approximately 5 minutes to complete.

Protection of Participants

Information and other records related to the center evaluation were accessible to those persons directly involved in conducting this research and members of the institutional review board (IRB), which provided oversight for the protection of human research volunteers. IRB approval was obtained from Hood College as well as from the institution where data were collected. The surveys contained no information that would personally identify the participants. Additionally, no identifying information (such as name, e-mail address, or internet protocol address) were not collected at any time. Data were stored in a password-protected electronic database maintained by me. Data were analyzed in aggregate so that no individual participant or groups of participants could be identified.

Reporting Adverse Events

I did not expect any complications, but if for any reason a participant believed that taking part in the center evaluation would constitute a hardship, they could withdraw from responding to the online survey at any point.

Data Analyses

IBM SPSS (Version 24) was used for statistical analyses. Means and standard deviations were calculated for all continuous variables. Data were examined to determine the frequency and distribution of extreme points and normality of distribution. Parametric test assumptions were performed by visual inspection, examination of statistical indices, and the Kolmogorov–Smirnov normality test. Table 2 provides a general overview regarding instruments, units of measure, and applied statistical tests.

Descriptive statistics (means and standard deviations) were computed for items on the demographic questionnaire including age, gender, ethnicity, years of employment, organizational roles, working hours, supervisor approachability, and availability. Bivariate correlational analyses were conducted to assess the strength and direction of linear relationships between pairs of variables. The resulting Pearson correlation coefficients can take values from -1 to $+1$. The sign indicates whether there is a positive or negative correlation, and the magnitude indicates the strength of the relationship.

Mediation hypotheses posit how the relationship between an independent variable (X) and a dependent variable (Y) is mediated through one or more potential intervening variables, or mediators (M), as shown in Figure 3.

Table 2

Study Variables, Measures, and Statistical Tests

Variable	Instrument	Data	Units of measure	Statistical tests
Demographic	Participant demographics	Age, gender, relationship status, education, years of employment	Nominal, ordinal, continuous	Descriptive
Organizational climate	Organizational Climate Dimensions Questionnaire	Scale ^a	Ordinal ^b	Descriptive correlation, mediation
Leadership styles & outcomes	Multifactor Leadership Sub Scales Questionnaire	Scale ^a	Ordinal ^b	Descriptive correlation, mediation
Strategic planning	Organization Strategic Framework Planning Process	Scale ^a	Ordinal ^b	Descriptive correlation, mediation

^aSelf-report. ^bTreated as scale.

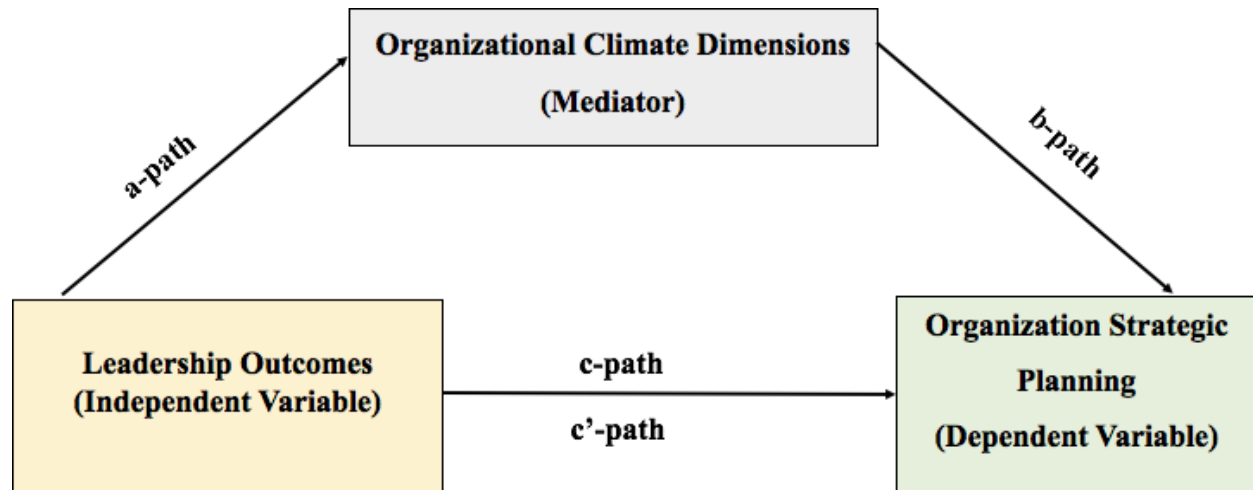


Figure 3. Simple mediation using the mediating effects of organizational climate on the relationship between leadership outcomes and organizational strategic planning. Path *a* is the effect of leadership outcome on specific organizational climate dimension; path *b* is the effect of specific organizational climate on the organizational strategic planning process; path *c* is the direct effect of leadership outcome on the organizational strategic planning process; and path *c'*

is the indirect effect of organizational climate on the relationship between leadership outcome and the organizational strategic planning process.

Mediation analysis was conducted to understand whether dimensions of organizational climate indirectly mediate the relationship between leadership outcome (extra effort, effectiveness, and satisfaction) and organizational strategic planning. First, the independent variable is regressed onto the mediator (path- a coefficients) and onto the dependent variable (path c); second, the mediator (path b) and the independent variable (path c') are regressed onto the dependent variable. Thus, mediation is built on the basic linear regression by adding a third variable (the mediator—organizational climate dimensions). Preacher and Hayes (2008) showed that $a \times b = c - c'$, but only when leadership outcomes and organizational climate are continuous. Thus, if $a \times b$ (the indirect effect) is statistically significant then mediation has occurred.

More modern approaches to mediation generally accept that a mediator M can mediate the relationship between X and Y , even if X is not statistically significantly related to Y or if X is not significantly related to M , or if M is not significantly related to Y (Hayes, 2017). This is for two reasons: First, the traditional approach relies too much on using statistical significance in order to determine whether a relation exists. Many aspects determine statistical significance (e.g. sample size; J. Cohen, 2016). If analysis reveals that a correlation between two variables is not statistically significant, it is impossible to conclude that the relation between them does not exist—it is only possible to conclude that such a relationship between them could not be found. Second, even if the correlation between two variables (e.g., X and Y) is very small, that relationship can still be mediated by a third mediating variable. That is, two variables do not need to be related to each other in order for a mediating variable to influence their relationship with each other. Given the small sample and cross-sectional design, results from this study

should be considered to be preliminary, exploratory, and hypothesis-generating. It was preferable to minimize the number of predictors in each multiple regression model tested using the PROCESS model (Hayes, 2017). Each mediator was analyzed in a separate simple mediation model, rather than using one combined parallel-mediation model.

Statistical assumptions for regression analysis were tested prior to mediation analysis. These included tests of linearity, homoscedasticity, and normality of estimation error. For linearity in the regression analysis, the relationship between X and Y should be linear to minimize error. The linearity assumption is important because if the relationship between X and Y is linear, the sample slope and intercept will be unbiased estimators of the population slope and intercept, respectively (Hayes, 2017; Kane & Ashbaugh, 2017). For homoscedasticity, the estimation error should be relatively equal across all predicted Y values. This means that there should be consistency in the vertical range across the X -axis where the data spreads on the Y -axis consistently and equally throughout the plot (Hayes, 2013; Kane & Ashbaugh, 2017). For normality of estimation error, the estimation error should be normally distributed, that is the normality assumption is that the conditional distributions of either y or the prediction errors (i.e. residuals) are normal in shape. In other words, for all values of X , the scores of Y or the prediction errors are normally distributed (Hayes, 2013; Kane & Ashbaugh, 2017).

Dimensions of organizational climate were selected for mediation analyses based on their significant correlations ($p \leq .05$) with both leadership outcomes and organizational strategic planning variables to account for a tighter selection of the mediators. There are many ways to test the significance of $a \times b$, such as the test of joint significance or Sobel test, but bootstrapping is the most preferred. Baron and Kenny (1986) have reported that the joint significance test results in a high Type I error because this is a liberal test, whereas if path a and path b are both

significant then $a \times b$ is also significant. Thus, the joint significance test is usually used as a supplement to other methods. The Sobel test (Sobel, 1982) is an alternative method to estimate the indirect effect and its significance using z values. However, the Sobel test is a conservative test with a high Type II error. Additionally, the Sobel test relies on the assumption of a large sample size that is normally distributed. Bootstrapping is a robust computer-intensive analysis that can be applied to small samples to test the significance of the indirect effect ($a \times b$). Bootstrapping is an alternative way to perform null hypothesis testing that can be applied to the test of the indirect effect ($a \times b$) to determine if it is nonzero (Kane & Ashbaugh, 2017). Bootstrapped confidence intervals with simple mediation models using PROCESS within SPSS (Version 24) were conducted to test the indirect effects; this method uses a regression-based approach to mediation (Kane & Ashbaugh, 2017; Preacher & Hayes, 2008).

Summary

The purpose of the center evaluation was to explore the collective effects of supervisory and executive-board leadership styles and leadership outcomes on organizational climate and strategic planning. Participants consisted of employees within a health-science center. Standardized surveys were administered online to participants using a SurveyMonkey link. There were 76 questions that took approximately 45 minutes to answer. Potential participants were informed about the study procedures and, if interested, they were asked to sign the informed consent online. Participation in the evaluation was voluntary and there was no coercion. No personal identifying information, such as name, e-mail address, or internet protocol address, were collected at any time. All data were imported from SurveyMonkey into SPSS (Version 24) for data analysis. Data were analyzed in aggregate.

CHAPTER 4

RESULTS

The study focused on three prominent leadership styles (transformational, transactional, and passive-avoidant leadership) and three leadership outcomes (extra effort, effectiveness, and satisfaction) as they relate to organizational climate and strategic planning.

SPSS (Version 24) was used for the statistical analyses. Means and standard deviations were calculated for all continuous variables. Data were examined to determine the frequency and distribution of extreme points for any outliers and the normality of distributions was tested with the Kolmogorov–Smirnov normality test. Bivariate correlational analyses were conducted to examine the relationship between leadership style, outcome, organizational climate, and strategic planning. Additionally, mediation analyses were performed to investigate the indirect effects of organizational climate on relationships between leadership outcome and strategic planning. The statistical assumptions for regression analysis (linearity, homoscedasticity, and normality of estimation error) were tested prior to the mediation analyses.

The research questions and the associated hypotheses that tested were as follows.

RQ1: How do leadership styles (transformational, transactional, and passive avoidant) correlate with the different dimensions of organizational climate?

Hypothesis 1a: Transformational leadership style positively affects employees' perceptions of organizational climate.

Hypothesis 1b: Transactional leadership style negatively affects employees' perceptions of organizational climate.

Hypothesis 1c: Passive-avoidant leadership style negatively affects employees' perceptions of organizational climate.

RQ2: How do leadership outcomes (extra effort, effectiveness, and satisfaction) correlate with the different dimensions of organizational climate?

Hypothesis 2a: Extra effort leadership outcome positively affects employees' perceptions of organizational climate.

Hypothesis 2b: Effectiveness leadership outcome positively affects employees' perceptions of organizational climate.

Hypothesis 2c: Satisfaction leadership outcome positively affects employees' perceptions of organizational climate.

RQ3: What is the relationship between leadership styles and organizational strategic planning?

Hypothesis 3a: Transformational leadership style positively affects organizational strategic planning.

Hypothesis 3b: Transactional leadership style negatively affects organizational strategic planning.

Hypothesis 3c: Passive-avoidant leadership style negatively affects organizational strategic planning.

RQ4: What is the relationship between leadership outcomes and organizational strategic planning?

Hypothesis 4a: Extra effort leadership outcome positively affects organizational strategic planning.

Hypothesis 4b: Effectiveness leadership outcome positively affects organizational strategic planning.

Hypothesis 4c: Satisfaction leadership outcome positively affects organizational strategic planning.

RQ5: What is the relationship between the various dimensions of organizational climate and organizational strategic planning?

Hypothesis 5: Dimensions of organizational climate positively affect organizational strategic planning.

RQ6: How do the various dimensions of organizational climate mediate the relationship between leadership outcomes and organizational strategic planning?

Hypothesis 6a: Organizational climate indirectly mediates the relationship between the extra effort leadership outcome and organizational strategic planning.

Hypothesis 6b: Organizational climate indirectly mediates the relationship between the effectiveness leadership outcome and organizational strategic planning.

Hypothesis 6c: Organizational climate indirectly mediates the relationship between the satisfaction leadership outcome and organizational strategic planning.

Demographics and Organizational Attributes

Table 3 shows the frequencies of responses for age, gender, and race or ethnicity and indicates that participants' ages ranged from 18 to 74 years with almost 38% of respondents between the ages of 25 and 34 years and 27% of respondents between the ages of 35 and 44 years. Organizational attributes are summarized in Table 4. The majority of respondents were relatively new to the organization.

Approximately 46% of respondents reported having very flexible working hours, and 60% reported having a regular 8-hour workday. Two percent of respondents reported having rigid working hours, and 1% reported working more than 10 hours per day.

Table 3

Descriptive Demographic Statistics

Category	% (f)
Age in years (<i>n</i> = 46)	
18–24	8 (4)
25–34	38 (18)
35–44	27 (13)
45–54	15 (7)
55–64	6 (3)
65–74	2 (1)
Gender (<i>n</i> = 47)	
Male	35 (17)
Female	63 (30)
Race and ethnicity (<i>n</i> = 47)	
Multiple ethnicities/other	6 (3)
Asian/Pacific Islander	15 (7)
Black or African American	6 (3)
Hispanic	2 (1)
White/Caucasian	69 (33)

Sixty-nine percent of respondents reported that their supervisor was extremely approachable, and 42% reported that their supervisor was extremely available. However, less than 13% of respondents reported that their supervisors were only slightly approachable, and 13% stated that their supervisors were slightly available.

Table 4

Descriptive Statistics for Years of Employment and Organizational Variables

Category	% (f)
Years of employment ($n = 46$)	
1–3	60 (29)
4–5	17 (8)
6–10	15 (7)
11–15	4 (2)
Organizational role ($n = 45$)	
Nonsupervisor	63 (30)
Employee supervisor	17 (8)
Manager	8 (4)
Executive	6 (3)
Typical daily work hours ($n = 48$)	
< 8	10 (5)
8	60 (29)
9	19 (9)
10	8 (4)
> 10	2 (1)
Supervisor approachability ($n = 48$)	
Extremely approachable	69 (33)
Moderately approachable	19 (9)
Slightly approachable	13 (6)
Supervisor availability ($n = 48$)	
Extremely available	42 (20)
Very available	27 (13)
Moderately available	19 (9)
Slightly available	13 (6)

Leadership Style, Sub-Scale and Outcome

Mean values of leadership style subscales and outcomes were calculated by adding scores for all responses for each relevant item and dividing the sum by the total number of responses for that item (Table 5).

Table 5

Descriptive Statistics for Leadership Styles, Sub-Scales and Leadership Outcomes

Variable	<i>N</i>	Minimum	Maximum	<i>Mean</i>	<i>SD</i>
Transformational	47	0	3	2	0.58
Idealized attributes	46	0	3	2	0.70
Idealized behaviors	47	0	3	2	0.61
Inspirational motivation	46	1	3	2	0.70
Intellectual stimulation	47	0	3	2	0.71
Individual consideration	46	0	3	2	0.62
Transactional	47	1	3	2	0.50
Transactional contingent reward	47	0	3	2	0.67
Transactional management by exception (active)	46	0	3	1	0.72
Passive avoidant	47	0	2	1	0.51
Passive-avoidant management by exception (passive)	46	0	2	1	0.59
Passive-avoidant laissez-faire	47	0	2	1	0.56
Effective leadership	46	1	3	2	0.76
Extra effort	46	0	3	2	0.72
Satisfactory	46	0	3	2	0.87

Note. Responses could have the values 0 (*not at all*), 1 (*once in a while*), 2 (*fairly often*), or 3 (*frequently, if not always*).

Dimensions of Organizational Climate and Organizational Strategic Planning

Descriptive statistics for scores for organizational climate and organizational strategic planning are shown in Table 6. Based on the responses, respondents maintained neutral responses to the organizational climate and strategic planning questionnaires.

Table 6

Descriptive Statistics for Dimensions of Organizational Climate and Organizational Strategic Planning

Variable	<i>N</i>	Minimum	Maximum	<i>Mean</i>	<i>SD</i>
Organizational climate					
Role clarity	45	2	6	4	0.93
Respect	45	3	6	5	0.74
Communication	44	2	6	4	1.0
Reward systems	43	1	6	3	0.85
Career development	44	1	6	3	1.13
Planning and decision-making	44	2	6	3	1.04
Innovation	45	1	6	4	1.10
Relationships	43	2	6	4	1.10
Teamwork and support	44	1	6	4	1.22
Quality of service	43	1	6	4	1.22
Conflict management	43	1	6	4	1.33
Commitment and morale	44	2	6	4	1.03
Training and learning	44	2	6	4	1.1
Direction	44	1	6	4	1.2
Organizational strategic planning	45	1	5	3	0.70

Note. Organizational climate responses could have the values 1 (*strongly disagree*), 2 (*disagree*), 3 (*slightly disagree*), 4 (*neither agree nor disagree*), 5 (*slightly agree*), 6 (*agree*), or 7 (*strongly agree*). Responses for organizational strategic planning could be 1 (*strongly agree*), 2 (*disagree*), 3 (*neutral*), 4 (*agree*), or 5 (*strongly agree*).

Correlational Analyses

Relationship between Leadership Style, Leadership Subscale and Outcome

Leadership subscale and outcomes are the result of leadership styles. Table 7 ($n = 46$) depicts the results of bivariate correlations that show that transformational and transactional leadership styles were significantly and positively correlated with all leadership subscales and leadership outcome variables but not with management by exception (active for transformational style and passive for transactional style). Passive-avoidant leadership style was significantly and negatively correlated with all leadership subscales and leadership outcomes but not with management by exception (active and passive).

Relationship between Leadership Style and Organizational Climate

Table 8 ($n = 43$) shows the relationship between leadership style and organizational climate. Transformational leadership style was significantly positively correlated with all dimensions of organizational climate with the exceptions of role clarity and quality of service. Passive-avoidant leadership style was significantly and negatively correlated with all dimensions of organizational climate with the exception of quality of service. Transactional leadership did not significantly correlate with any dimensions of organizational climate except relationship, for which a significant positive correlation was detected.

Table 7

Correlations between Leadership Style, Leadership Sub-scale and Outcome

Leadership sub-scale and outcome	Leadership style		
	Transformational	Transactional	Passive avoidant
Idealized attributes	.93**	.45**	-.44**
Idealized behaviors	.83**	.36*	-.33*
Inspirational motivation	.85**	.45**	-.58**
Intellectual stimulation	.91**	.53**	-.29*
Individual consideration	.84**	.40**	-.42**
Contingent reward	.83**	.66**	-.48**
Active management by exception	-.13	.71**	.23
Passive management by exception	-.34*	-.18	.90**
Laissez-faire	-.51**	-.19	.89**
Effectiveness	.84**	.45**	-.62**
Extra effort	.80**	.37*	-.35*
Satisfactory	.80**	.30*	-.64**

* $p < .05$. ** $p < .01$.

Table 8

Correlations between Leadership Style and Organizational Climate

Organizational climate	Leadership style		
	Transformational	Transactional	Passive avoidant
Role clarity	.30	.06	-.36*
Respect	.41**	.16	-.51**
Communication	.37*	.11	-.51**
Reward systems	.26	-.22	-.47**
Career development	.62**	.29	-.50**
Planning and decision-making	.35*	.12	-.46**
Innovation	.40**	.14	-.52**
Relationships	.47**	.31*	-.37*
Teamwork and support	.41**	.19	-.62**
Quality of service	.15	.19	-.24
Conflict management	.32*	.29	-.50**
Commitment and morale	.35*	.18	-.51**
Training and learning	.43**	.24	-.59**
Direction	.34*	.07	-.43**

* $p < .05$. ** $p < .01$.

Relationship between Leadership Outcome and Organizational Climate

Table 9 ($n = 43$) shows the relationships between leadership outcomes and organizational climate. Extra effort was significantly and positively correlated with all dimensions of organizational climate with exception of quality of service. A significant positive correlation was detected between effectiveness and several dimensions of organizational climate with the exceptions of role clarity, rewards systems, teamwork and support, conflict management, and commitment and morale. Additionally, with the exceptions of quality of service and conflict management, satisfaction was significantly and positively correlated with the remaining dimensions of organizational climate.

Table 9

Correlations between Leadership Outcome and Organizational Climate

Organizational climate	Leadership outcome		
	Effectiveness	Extra effort	Satisfaction
Role Clarity	.43**	.22	.39**
Respect	.54**	.35*	.59**
Communication	.50**	.32*	.53**
Reward systems	.38*	.17	.42**
Career development	.59**	.50**	.66**
Planning and decision-making	.53**	.38*	.42**
Innovation	.47**	.45**	.39**
Relationships	.44**	.40**	.42**
Teamwork and support	.54**	.15	.57**
Quality of service	.30	.32*	.16
Conflict management	.49**	.29	.23
Commitment and morale	.46**	.27	.40**
Training and learning	.54**	.37*	.50**
Direction	.43**	.37*	.37*

* $p < .05$. ** $p < .01$.**Relationship between Leadership Style, Outcome and Organizational Strategic Planning**

Table 10 ($n = 44$) shows that organizational strategic planning was negatively and significantly correlated with passive-avoidant leadership and positively and significantly correlated with extra effort.

Relationship between Organizational Strategic Planning and Organizational Climate

Organizational strategic planning was significantly and positively correlated with the majority of the dimensions of organizational climate, with exceptions of reward systems, career development, and relationships as shown in Table 11 ($n = 45$).

Table 10

Correlations between Organizational Strategic Planning, Leadership Style, and Outcome

Leadership style and outcome	Organizational strategic planning
Transformational	.08
Transactional	.25
Passive avoidant	-.34*
Effectiveness	.32*
Extra Effort	.41
Satisfactory	.17

* $p \leq .05$.

Table 11

Correlations between Organizational Strategic Planning and Organizational Climate

Organizational climate	Organizational strategic planning
Role clarity	.38*
Respect	.37*
Communication	.56**
Reward systems	.29
Career development	.24
Planning and decision-making	.51**
Innovation	.47**
Relationships	.24
Teamwork and support	.41**
Quality of service	.49**
Conflict management	.42**
Commitment and morale	.52**
Training and learning	.46**
Direction	.46**

* $p \leq .05$. ** $p \leq .01$.

Mediation Analysis of Indirect Mediation Effects of Organizational Climate on Leadership Outcome and Organizational Strategic Planning

Mediation analysis was conducted to understand whether dimensions of organizational climate indirectly mediated the relationship between leadership outcome (extra effort, effectiveness, and satisfaction) and organizational strategic planning. Dimensions of organizational climate were selected for mediation analyses based on their significant correlations with both leadership outcome and organizational strategic planning, to account for a tighter selection of the mediators. Bootstrapped analysis with mediation model 4 using PROCESS within SPSS (Version 24) were conducted to test the indirect effects as shown in Tables 12–14 ($n = 43$).

Table 12

Mediating Role of Selected Organizational Climate Dimensions on Effective Leadership

Outcome and Organizational Strategic Planning

Path	Coefficient	SE	p	95% CI	
				LL	UL
Respect mediator					
a	0.51	0.12	< .001	0.26	0.76
b	0.31	0.17	> .05	−0.04	0.65
c	0.12	0.16	> .05	−0.18	0.48
c'	0.16	0.11	> .05	−0.06	0.36
Communication mediator					
a	0.65	0.180	< .001	0.29	1.02
b	0.39	0.108	< .001	0.17	0.60
c	0.04	0.142	> .05	−0.24	0.33
c'	0.25	0.107	< .05	0.07	0.49
Career development mediator					
a	0.91	0.18	< .001	0.55	1.3
b	0.05	0.12	> .05	−0.20	0.30
c	0.25	0.18	> .05	−0.12	0.62
c'	0.05	0.11	> .05	−0.18	0.28
Planning and decision-making mediator					
a	0.75	0.19	< .001	0.36	1.13
b	0.34	0.11	< .01	0.12	0.56
c	0.04	0.15	> .05	−0.28	0.35
c'	0.25	0.09	< .05	0.07	0.44
Innovation mediator					
a	0.66	0.20	< .01	0.26	1.05
b	0.27	0.10	< .05	0.06	0.49
c	0.12	0.15	> .05	−0.17	0.42
c'	0.18	0.10	< .05	0.03	0.38
Training and learning mediator					
a	0.83	0.20	< .001	0.43	1.23
b	0.18	0.10	> .05	−0.02	0.38
c	0.26	0.15	> .05	−0.03	0.56
c'	0.152	0.10	> .05	−0.01	0.38
Future directions mediator					
a	0.70	0.24	< .01	0.23	1.18
b	0.18	0.08	< .05	0.01	0.34
c	0.29	0.13	< .05	0.02	0.56
c'	0.12	0.08	> .05	−0.02	0.30

Note: Path *a* is independent variable to mediator. Path *b* is mediator to dependent variable. Path *c* is direct effect of independent variable to dependent variable; Path *c'* is independent variable to dependent variable through mediator (indirect effect). The CI for *c'* was calculated using bootstrap methodology. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

Table 13

Mediating Role of Selected Organizational Climate Dimensions on Extra Effort Leadership

Outcome and Organizational Strategic Planning

Path	Coefficient	SE	<i>p</i>	95% CI	
				<i>LL</i>	<i>UL</i>
Respect mediator					
<i>a</i>	0.34	0.15	< .05	0.04	0.63
<i>b</i>	0.43	0.16	< .01	0.11	0.74
<i>c</i>	−0.10	0.15	> .05	−0.41	0.21
<i>c'</i>	0.14	0.08	> .05	−0.02	0.29
Communication mediator					
<i>a</i>	0.44	0.21	< .05	0.02	0.86
<i>b</i>	0.43	0.10	< .001	0.24	0.63
<i>c</i>	−0.14	0.14	> .05	−0.41	0.14
<i>c'</i>	0.190	0.10	< .05	0.01	0.40
Career development mediator					
<i>a</i>	0.86	0.20	< .001	0.45	1.27
<i>b</i>	0.20	0.12	> .05	−0.04	0.44
<i>c</i>	−0.12	0.18	> .05	−0.49	0.25
<i>c'</i>	0.17	0.11	> .05	−0.07	0.35
Planning and decision-making mediator					
<i>a</i>	0.55	0.21	< .01	0.12	0.98
<i>b</i>	0.39	0.10	< .001	0.20	0.59
<i>c</i>	−0.17	0.14	> .05	−0.46	0.12
<i>c'</i>	0.22	0.10	< .05	0.03	0.42
Innovation mediator					
<i>a</i>	0.66	0.21	< .01	0.24	1.09
<i>b</i>	0.38	0.10	< .01	0.17	0.58
<i>c</i>	−0.21	0.15	> .05	−0.52	0.10
<i>c'</i>	0.25	0.10	< .05	0.06	0.46
Training and learning mediator					
<i>a</i>	0.63	0.22	< .01	0.17	1.08
<i>b</i>	0.30	0.09	< .01	0.12	0.49
<i>c</i>	−0.09	0.14	> .05	−0.38	0.20
<i>c'</i>	0.19	0.08	< .05	0.05	0.37
Future directions mediator					
<i>a</i>	0.64	0.25	< .01	0.14	1.15
<i>b</i>	0.27	0.08	< .01	0.10	0.44
<i>c</i>	−0.07	0.14	> .05	−0.36	0.22
<i>c'</i>	0.17	0.08	< .05	0.02	0.34

Note: Path *a* is independent variable to mediator. Path *b* is mediator to dependent variable. Path *c* is direct effect of independent variable to dependent variable; Path *c'* is independent variable to dependent variable through mediator (indirect effect). The CI for *c'* was calculated using bootstrap methodology. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

Table 14

Mediating Role of Selected Organizational Climate Dimensions on Satisfaction Leadership

Outcome and Organizational Strategic Planning

Path	Coefficient	SE	p	95% CI	
				LL	UL
Respect mediator					
a	0.48	0.10	< .001	0.27	0.70
b	0.44	0.18	< .01	0.08	0.80
c	−0.07	0.15	> .05	−0.37	0.23
c′	0.21	0.10	< .05	0.02	0.40
Communication mediator					
a	0.61	0.15	< .001	0.30	0.90
b	0.47	0.11	< .001	0.25	0.69
c	−0.15	0.13	> .05	−0.40	0.10
c′	0.29	0.10	< .05	0.12	0.50
Career development mediator					
a	0.89	0.15	< .001	0.60	1.19
b	0.16	0.14	> .05	−0.12	0.44
c	−0.003	0.18	> .05	−0.36	0.36
c′	0.14	0.13	> .05	0.13	0.38
Planning and decision-making mediator					
a	0.51	0.18	< .01	0.16	0.90
b	0.37	0.10	< .001	0.17	0.58
c	−0.07	0.12	> .05	−0.33	0.18
c′	0.19	0.08	< .05	0.04	0.35
Innovation mediator					
a	0.47	0.18	< .01	0.11	0.84
b	0.32	0.10	< .01	0.11	0.52
c	−0.01	0.12	> .05	−0.26	0.24
c′	0.15	0.08	< .05	0.03	0.33
Training and learning mediator					
a	0.66	0.18	< .001	0.30	1.01
b	0.27	0.10	< .01	0.74	0.50
c	0.02	0.13	> .05	−0.24	0.28
c′	0.18	0.08	< .05	0.04	0.36
Future directions mediator					
a	0.52	0.21	< .01	0.10	0.95
b	0.23	0.08	< .01	0.06	0.40
c	0.08	0.12	> .05	−0.16	0.32
c′	0.12	0.07	< .05	0.01	0.29

Note: Path *a* is independent variable to mediator. Path *b* is mediator to dependent variable. Path *c* is direct effect of independent variable to dependent variable; Path *c'* is independent variable to dependent variable through mediator (indirect effect). The CI for *c'* was calculated using bootstrap methodology. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

Transformational leadership significantly and positively correlated with several dimensions of organizational climate, while passive-avoidant leadership significantly and negatively correlated with several dimensions of organizational climate. Leadership outcomes—extra effort, effectiveness, and satisfaction—positively correlated with several dimensions of organizational climate, including respect, communication, career development, planning and decision-making, innovation, relationships, and direction. Organizational strategic planning significantly and positively correlated with most dimensions of organizational climate with the exception of reward systems, career development, and teamwork and support. Additionally, organizational strategic planning positively correlated with effectiveness ($r = 0.32, p \leq .05$) and negatively correlated with passive-avoidant leadership ($r = -0.34, p \leq .05$).

Mediation analysis was conducted to understand whether dimensions of organizational climate mediate the relationship between leadership outcome (extra effort, effectiveness, and satisfaction) and organizational strategic planning. Dimensions of organizational climate were selected for mediation analyses based on significant correlations ($p \leq .05$) with both leadership outcome and organizational strategic planning variables. The organizational climate dimensions thus selected were respect, communication, planning and decision-making, innovation, and future direction.

Findings from the mediation analyses showed that the indirect variables that predicted the effective leadership outcome and organizational strategic planning were communication, planning and decision-making, and innovation. The indirect variables that predicted the extra effort leadership outcome and organizational strategic planning were communication, planning and decision-making, innovation, and future direction. And lastly, the indirect variables that predicted the satisfaction leadership outcome and organizational strategic planning were respect,

communication, planning and decision-making, innovation, and future directions. So, the three main organizational climate factors that indirectly mediated leadership outcome and strategic planning were communication, planning and decision-making, and innovation.

Summary

A summary of the hypotheses and the supporting results is provided in Table 15.

Demographic data revealed that the majority of respondents were White or Caucasian females, aged between 25 and 35 years who had been working at the center for at least 1–3 years. The majority of respondents were non-supervisors with flexible work schedules of 8 hours per day who found their supervisors to be approachable and available to their needs.

Mean scores for leadership style and outcomes as perceived by staff suggested respondents fairly often observed their supervisors exhibiting transformational leadership style and leadership outcomes. A significant positive correlation was detected between transformational and transactional leadership styles and leadership outcomes, and a significant negative correlation was detected between passive-avoidant leadership style and leadership outcomes.

Table 15

Summary of Accepted and Rejected Hypothesis

Hypothesis		Result	Reference
No.	Description		
1a	Transformational leadership style positively affects employees' perceptions of organizational climate.	Supported	Table 8
1b	Transactional leadership style negatively affects employees' perceptions of organizational climate.	Not Supported	Table 8
1c	Passive-avoidant leadership style negatively affects employees' perceptions of organizational climate.	Supported	Table 8
2a	Extra effort leadership outcomes positively affect employees' perceptions of organizational climate.	Supported	Table 9
2b	Effectiveness leadership outcomes positively affect employees' perceptions of organizational climate.	Supported	Table 9
2c	Satisfactory leadership outcomes positively affect employees' perceptions of organizational climate.	Supported	Table 9
3a	Transformational leadership style positively affects organizational strategic planning.	Not Supported	Table 10
3b	Transactional leadership style negatively affects organizational strategic planning.	Not Supported	Table 10
3c	Passive-avoidant leadership style negatively affects organizational strategic planning.	Supported	Table 10
4a	Extra effort leadership outcome positively affects organizational strategic planning.	Not Supported	Table 10
4b	Effectiveness leadership outcome positively affects organizational strategic planning.	Supported	Table 10
4c	Satisfactory leadership outcome positively affects organizational strategic planning.	Not Supported	Table 10
5	Dimensions of organizational climate positively affect organizational strategic planning.	Supported	Table 11
6a	Organizational climate indirectly mediates the relationship between the extra effort leadership outcome and organizational strategic planning.	Supported	Table 12
6b	Organizational climate indirectly mediates the relationship between the effectiveness leadership outcome and organizational strategic planning.	Supported	Table 13
6c	Organizational climate indirectly mediates the relationship between the satisfaction leadership outcome and organizational strategic planning.	Supported	Table 14

Chapter 5 interprets the results in the context of existing literature and discusses the study's limitations, possible applications, and future directions.

CHAPTER 5

DISCUSSION, IMPLICATIONS, AND CONCLUSIONS

The literature review highlighted three prominent leadership styles (transformational, transactional, and passive avoidant) and three leadership outcomes (extra effort, effectiveness, and satisfaction); however, leadership styles and outcomes have not been extensively studied together with dimensions of organizational climate and organizational strategic planning. Recognizing this gap and filling it with empirically based research is critical as it would enable leaders to better support their mission and educate future employees, academic researchers, and care providers.

Discussion

The sections that follow discuss each of the research findings and their meanings in terms of the research questions and hypotheses.

Demographics and Organizational Attributes

Thirty-eight percent of respondents were aged 25–34 years. Sixty percent of respondents had been working at the center for 1–3 years. Sixty-three percent of respondents had nonsupervisory roles, 60% reported working 8 hours per day, and 27% reported working more than 8 hours per day. Forty-six percent and 40% of respondents reported having very flexible and flexible working hours, respectively. Sixty-nine percent of respondents reported having extremely approachable supervisors; however, only 42% reported their supervisors to be extremely available. These data are important because they illustrate workplace relationships and employee performance (Edem, Akpan, & Pepple, 2017). Some respondents reported working overtime. Gaining further understanding of hours spent working is important, because overtime could eventually lead to detrimental occupational effects in individuals along with burnout

(Brewer & Shapard, 2004). Leaders must make efforts to understand organizational factors that lead to overload and lack of time or resources to meet the demands placed on employees at work. Leaders must be trained to identify signs of overload and burnout among employees and must provide appropriate support and resources to complete tasks and minimize exhaustion and fatigue in the workplace (Brewer & Shapard, 2004).

Leadership Style and Outcome

Leadership style mean scores showed that respondents reported their supervisors to exhibit both transformational leadership and transactional leadership styles once in a while. However, more transformational leadership subcomponents received responses of *fairly often* compared to subcomponents of transactional and passive-avoidant styles, which received more responses of *once in a while*.

Mean values were the same for effective, extra effort, and satisfaction leadership style outcomes, indicating that supervisors exhibited behaviors that met employee expectations, contributed to organizational effectiveness, and met employee satisfaction *fairly often*. Respondents reported that their leaders and supervisors *fairly often* served as role models for staff and demonstrated genuine concern for the needs of employees. The organization showed a more positive profile for transformational leadership than for transactional or passive-avoidant leadership. The mean values for transformational leadership style and outcomes suggest that center supervisors and executive-board leaders may require additional leadership training to grow and improve. Participating in leadership training programs would develop their core leadership competencies and provides leader with the tools required to create a healthy workforce within the health-science center (Sonnino, 2016).

Transformational leadership had a robust positive correlation with the leadership outcomes; transactional leadership also had significant and positive correlations with the leadership outcomes, but these were weaker in comparison. Passive-avoidant leadership had a significant negative correlation with leadership outcomes. Leaders in health-science centers must organize creative people into effective collaborative teams motivated by common goals (Slavkin, 2010). Based on the findings, transformational leadership results in more efficient leadership outcomes; however, supervisory leaders at the center could use a combination of the transformational and transactional leadership styles to augment their leadership (Judge & Piccolo, 2004). To practice effective leadership within the health-science center, supervisors must create health organization workplaces that will improve employee well-being and organizational functioning.

Leadership Style, Outcome, and Organizational Climate

Mean scores for organizational climate show that respondents slightly agreed that the organizational climate dimension of respect was effectively displayed in the work environment. Otherwise, mean responses to most of the dimensions of organizational climate were neutral, while respondents slightly disagreed that the organization displayed reward systems, career development, and planning and decision-making. Based on this, center leaders and supervisors need to be more proactive in creating a good working climate for employees.

The dimensions of organizational climate were significantly and robustly positively correlated with transformational leadership scales (with exceptions of role clarity, reward systems, and quality of service), and the dimensions of organizational climate (except quality of service) were significantly and negatively correlated with passive avoidant leadership. Transactional leadership scales did not show any significance associations with organizational

climate dimensions, except for the relationships dimension. Thus, the findings supported the claims of Hypotheses 1a and 1c that leadership style is associated with organizational climate and is consistent with the literature that leadership occupies a unique place in determining organizational climate (Moslehpour, Altantsetseg, Mou, & Wong, 2019; Wang, Oh, Courtright, & Colbert, 2011).

The results from the current study provide valuable insights into the relationship between leadership styles and organizational climate within a health-science center. The center supervisors should have an insight into staff experiences with the organizational environment in which they work and ensure alignment between organizational climate and organization mission. Supervisors should self-reflect and gain better insight into their leadership styles and the outcomes they create for organizational climate and take necessary reformative measures to improve their leadership styles.

Although the three leadership outcomes showed significant and positive correlations with many dimensions of organizational climate, the three strongest significant relationships were with the organizational climate dimensions of career development, innovation, and relationships. Opportunities for professional career development, innovation, and building relationships are very important within health-science centers. Findings from the current study confirm Hypotheses 2a, 2b, and 2c, which claim that leadership outcomes correlate with the different dimensions of organizational climate, as shown in Table 9.

Supervisors working within health-care centers must aim to develop the necessary skills within employees to achieve success. Leaders must aim to foster an environment in which employees can make novel contributions and provide opportunities for professional growth. Results from the health-science center survey suggest that organizational climate is a direct

function of leadership style, and policies and practices should be aimed at developing an environment where healthy organizational networks are encouraged for the professional development and innovative practices of employees (Gritzo, Fufeld, & Carpenter, 2017).

Leadership Style, Outcome, and Organizational Strategic Planning

Mean scores for organizational strategic planning were neutral. Employees showing indifference toward the center's strategic planning process could hurt the organization in the long run. Employees need to know what the organization is ultimately trying to achieve and have a shared vision to work toward. Program managers and supervisors should work with their individual teams to identify key strategic planning processes and how specific teams lead to meeting the holistic mission of the organization.

The effective leadership outcome was significantly and positively correlated with many dimensions of organizational climate. Thus, respondents wanted to see effective leadership outcomes in their supervisors and leaders to meet their work needs and understand organizational requirements as their primary goal. Additionally, organizational strategic planning was negatively and significantly correlated with passive-avoidant leadership and positively and significantly correlated with the effectiveness leadership outcome. There was no significant relationship between organizational strategic planning and other leadership styles or outcomes, leading to rejection of Hypotheses 3a, 3b, 4a, and 4c. Organizations depend upon strategic planning to achieve the organization's vision; leaders assimilate the strategy to enrich, facilitate, and meet organizational goals (Jabbar & Hussein, 2017).

Although the transformational or transactional leadership styles did not significantly correlate with organizational strategic planning, it is important to note that poor leadership will influence strategic planning and can have a positive or negative effect on the organization.

Center supervisors and executive leaders must take the time to educate employees in understanding the organization's mission, vision, and values, which is the first step of strategic planning. Leaders must curb their urge to create overambitious and complex strategic plans and must instead develop achievable strategies with action plans (American Society of Clinical Oncology, 2009). Supervisors must be trained to orient employees on how staff members meet the work goals of the center as a whole rather than individual projects, programs, and initiatives. For the strategic planning process to be effective, it requires two specific integrative mechanisms: employees must participate in the strategic planning process and top management must communicate the resulting goals and priorities (Ketokivi & Castaner, 2004). Incorporating these integrative practices into the strategic planning process of the center would promote convergent goals and understanding of leadership directives (Ketokivi & Castaner, 2004).

Organizational Climate and Strategic Planning

Several dimensions of organizational climate were significantly and positively correlated with organizational strategic planning. The exceptions were the dimensions of reward systems, career development, and relationships. Although the relationship between leadership outcome and career development was significant and positive, there was no correlation between career development and strategic planning. Supporting the organizational mission closely with the career development process allows for employees' potential growth to follow a new course that can be aligned to the organization's strategic plans (Donner & Wheeler, 2001).

I found that organizational strategic planning was significantly and positively associated with the organizational climate dimension of role clarity. A role is a set of expectations of a staff member by others in his or her organization; employees with high role clarity possess a clearer understanding of their job requirements (Whitaker, Dahling, & Levy, 2007). Roles can be

measured in two dimensions: ambiguity (having inadequate information to perform a job) and conflict (lack of congruence between the expectations of an employee in a position and the employee's capabilities (Kroposki, Murgaugh, Tavakoli, & Parsons, 1999). Organizational leaders must include as part of their strategic planning a means of reviewing employee roles in relation to organizational strategic goals.

A supportive work climate allows employees to communicate their opinions freely, without fear of losing respect. Respect is a core value within an organization because it relates to organizational recognition and engagement within the work environment (Burchell & Robin, 2011), and it supports the results of my study. Rogers and Ashforth (2017) stated that respect at work was highly ranked among the characteristics that employees valued most in their job. Including respect as an organizational value informs employees about the strategies that leaders use to achieve strategic goals. Communication as a dimension of organizational climate is vital in the strategic planning process (Bryson, 2010). Communication is associated with organizational alignment and employee engagement (Welch, 2011), as was shown in this study. Employees who are committed to the values and goals of their organization have higher morale and lower turnover (Fornes & Rocco, 2004). Employees who experience low morale in the work environment blame their immediate supervisors for the supervisors' leadership-related competencies, such as communicating vision, demonstrating trust, and developing teams (Ngambi, 2011). Organizational supervisors must be able to strengthen employee commitment and morale by increasing awareness of the organization's strategic goals.

A leader's methods of planning and decision-making affects organizational climate and strategic planning because they influence organizational activities (Ejimabo, 2015). My results showed that organizational strategic planning was significantly and positively correlated with

planning and decision-making. It would benefit the organization generally and employees specifically if supervisors continued to improve and develop their planning and decision-making.

Additionally, innovation as a dimension of organizational climate was significantly and positively correlated with organizational strategic planning. A supportive organizational work environment would encourage employees to be creative and produce innovative outputs (Weintraub & McKee, 2019). The quality of services and products of an organization relates to organizational success, and strategic performance measurement should focus on the output and outcomes the organization planned to achieve (Kaplan, 2001). The training and development of employees within an organization creates a climate for constant learning and facilitates the sharing of knowledge and ideas among employees and promotion of new knowledge (Sung & Choi, 2014). Supervisors and executive leaders should use an integrated strategic-planning map and Balance scorecard to ensure employees align their innovative products with the organization's overall strategy.

Organizational leaders who provide employees with support and encourage teamwork show quality leadership. Support and teamwork were significantly and positively related with organizational strategic planning. An organizational climate that supports teamwork is an important aspect of organizational strategy because employees improve their skills and abilities when working together as a team, which thereby increases organizational performance and effectiveness (Hanaysha, 2016). Additionally, fostering a collaborative teamwork environment minimizes team conflict. Therefore, supervisors must provide opportunities for employees to work together synergistically both inside and outside departments and centers.

Mediating Effects of Organizational Climate on Relationships between Leadership Outcome and Organizational Strategic Planning

The findings showed that select organizational climate dimensions (respect, communication, planning and decision-making, innovation, training and learning, and future directions) indirectly mediated the relationship between leadership outcome and strategic planning. However, the three main organizational climate dimensions, which indirectly mediated the relationship between all leadership outcomes (effectiveness, extra effort, and satisfaction) and strategic planning were communication, planning and decision-making, and innovation.

An organization is unique to the environment in which it operates its mission, services, products, and business model (Drucker, 2012; Kotler & Keller, 2011). Internal and external communication is essential to achieve organizational alignment, outputs, and sustained growth (Berger, 2008). Effective organizational communication determines the success of organization values and norms, which is vital for organizational effectiveness and efficiency. Lack of effective communication encourages employees to interpret on their own the rules and norms of the organization (Parboteeah et al., 2010). Thus, effective communication increases integration of employees within the organization and aligns them with the organization's strategic context.

Organizational climate associates with decision-making, which in turn influence the ways in which the organization uses its resources, such as people, buildings, intellectual property, and funds (Ekvall, 1991). Decision-making involves employees' perceptions of the decision-making process within the organization, which in turn relates to organizational climate (Combrink, 2004). Employees who participate in the organization's decision-making believe that they are closely connected to organizational goals and feel that they are able to better handle their job with minimal supervision (Han et al., 2010).

Innovative competitive advantage can be developed through employee knowledge; therefore, it is vital to create an organizational climate that cultivates innovation (Shanker, Bhanugopan, Van der Heijden, & Farrell, 2017). Innovation is considered a product of the human mind and its creativity, where tacit knowledge resides. The effect of organizational climate on behavioral expectations is an essential outcome of leadership (Yeoh & Mahmood, 2013). Innovative organizational climate is associated with organizational outcomes that include improved implementation of ideas, greater organizational innovation, and more general benefits, such as employee satisfaction and effectiveness (Aarons & Sommerfeld, 2012). Within a health-science center, failing to innovate can risk the continued existence of the organization. An organizational climate for innovation is crucial where creativity is encouraged, and employees can build upon each other's ideas. Organizational leaders could increase innovation by engaging the right people and motivating them to contribute diverse ideas and perspectives (Bouhali et al., 2015).

The strong positive correlation between the communication, planning and decision-making, and innovation dimensions of organizational climate and transformational leadership style and leadership outcomes, as well as the indirect mediation of the relationship between leadership outcomes and organizational strategic planning, demonstrates that leadership should facilitate resources to increase the use of these organizational climate dimensions in its strategic plan.

Limitations

The study presented several limitations for consideration when interpreting the findings. Participants were recruited from a health-science center that was selected out of convenience, thereby limiting the generalizability of the data to a larger population. A wider administration of

the questionnaires across different health-science centers would have increased the sample size and made the data more generalizable. Results from this study should be considered to be preliminary, exploratory, and hypothesis-generating.

The original Multi-factor leadership questionnaire -rater form has a 5 -point Likert scale, 0 (not at all), 1 (once in a while), 2 (sometimes), 3 (fairly often), and 4 (frequently, if not always). However, in the present study, I used a 4 -point Likert scale, 0 (not at all), 1 (once in a while), 2 (fairly often), and 3 (frequently, if not always). The leadership questionnaires were used to assess the independent variables – leadership styles and outcomes. A 4 -point Likert scale was used so that respondents were required to provide a specific response to an item and not to be locked in the mid-point (Nadler, Weston, & Voyles, 2015). Additionally, using a four-point Likert scale would reduce the ambiguous meaning and thereby reduce measurement error. Although, designed with the intention of reducing instances of false responses, studies have shown that the inclusion of a neutral opinion increases the number of people stating they have no opinion even when they actually do (Krosnick et al., 2002; Nowlis Kahn, & Dhar, 2002). In the present study, it is unlikely that the 4 point responses biased the participants in anyway because the response choices were very similar to the original scale, and the scale is composed of 45 items, which are scored as average scores for the items that make up the scale. Thus, the combined score washes out any measurement error and unlikely to affect the validity of the instrument.

In the current study, I have used three main questionnaires in the survey that had different Likert scales and did not convert to standardized scores in the data analyses. This may also have caused a respondent burden where study participants may be confused of using different response scales. However, it is unlikely that different scales with different response options

could have caused any systematically biased responses in a particular direction. Moreover, the Cronbach's Alpha from the questionnaires were within the acceptable ranges thus it is unlikely that different scales substantially increased measurement errors. Additionally, the regression/path coefficients by the PROCESS procedures were in unstandardized form. However, by employing the bootstrap confidence intervals within a single test of indirect effects, PROCESS provides a method for testing of indirect effects that minimizes errors in results (Hayes, 2017).

I used a questionnaire that measured the three leadership styles of the full range leadership theory (transformational, transactional, and passive avoidant) and three leadership outcomes (effectiveness, extra effort, and satisfaction). Results showed higher mean scores for leadership styles and outcomes; additionally, I did not find any relationship between leadership style and organizational strategic planning. Thus, it would be useful to measure and compare other leadership styles, such as thought leadership or translational leadership, to find the common set of effective leadership styles and outcomes for use with organizational strategic planning within health-science centers.

The use of lengthy questionnaires in the study, such as the OCQ, could have increased participant burden. It would be useful to replicate the study across other health-science centers using shorter instruments measuring organizational climate dimensions with high internal reliability and strong validity. Additionally, I did not conduct qualitative interviews, which could have captured the narrative responses of center employees regarding their perceptions of their supervisors' and executive leaders' leadership styles and how they relate to the organizational climate and strategic plan.

I obtained measures of leadership style and outcome from employees' perceptions of their supervisors. It would be interesting to obtain measures of these variables by asking supervisors

to rate themselves, which could also provide insight on the gap in perceptions of leadership styles and outcomes between employees and supervisors.

Implications of the Findings

Even with the limitations presented, there are several implications of the findings of the study. The results provide insight into what health-science-center employees need from their supervisors and executive leaders in terms of transformational leadership style, high leadership outcomes, positive organizational climate, and engaged strategic planning.

Implications for Practice

I explored the mediating effects of organizational climate on the relationship between leadership outcomes and organizational strategic planning within a health-science center. Although academic research centers have typically chosen leaders and supervisors based on their subject matter expertise, these leaders have lacked experience in administration and sound leadership styles. Health-science-center leaders and supervisors must have the right leadership styles to obtain optimal leadership outcomes for developing healthy organizational climate and strong strategic planning processes. Based on the responses I received, several dimensions of organizational climate need to be improved at the studied center. Responses showed that respondents preferred a transformational leadership style that yields effective leadership outcomes.

Ineffective leadership accounts for most of organizational failures and poses a serious threat to organizational climate and the organizational strategic planning process. Through transformational leadership style and the effective leadership outcome, health-science centers can create the optimal type of organizational climate for developing an organizational strategic planning process. By recognizing the needs of the health-science center, unique leadership

training programs can be developed to provide supervisors with the necessary tools to improve their leadership styles, work environment, and strategic plans.

I found that respondents recognized the need for communication, planning and decision-making, and innovation as key dimensions of organizational climate. These climate dimensions can indirectly mediate the relationship between leadership outcomes and strategic planning.

Thus, managers could foster opportunities where both leaders and employees can take part in formal or informal organizational communication training. Furthermore, center supervisors and leaders could create working groups to discuss guidelines for the decision-making processes at an organizational level. Effective leaders will develop good policy standards that incorporate optimal decision-making processes and communicate them effectively to employees.

Organizational structure plays a huge role in the decision-making process. Furthermore, the center leaders and supervisors, through transformational leadership style and the effective leadership outcome, could stimulate employees to think of opportunities they engage in as innovative activities. Additionally, the neutral responses from respondents regarding the center's strategic planning process indicate that it would be beneficial to have active participation and involvement from all levels of the organization, including employees, in the strategy process. Participation and feedback from all levels of the organizational structure would educate employees to gain the necessary knowledge and resources required to complete the mission-based goals of the center.

Implications for Further Research

The findings illustrate how transformational leadership style and the effective leadership outcome play an integral part in organizational climate and organizational strategic planning.

Although I have offered several practical applications, the findings invite further investigation to

identify methods of formally developing the many components of leadership style within health-science centers and the training necessary to use them effectively.

One area that needs to be further understood is the phenomenon of gender differences in leadership style and outcome. In the studied health-science center, 63% of employees were women. The present study limits to capture the gender ratio of those in managerial and executive leadership positions; however, this information would be necessary to develop leadership programs, tailored unique to gender requirements of male and female leaders in health-science centers.

Findings from the present study can be discussed with the Health Science Center leadership to inform the needs and gaps of the Center. Leadership practices that provide clarity on organizational goals and objectives may contribute to a positive work climate, sustains employee motivation, and performance.

Another aspect of developing leadership programs is the question of which career stage these programs should be offered. Early leadership career programs would enable employees to be equipped if they chose to pursue significant leadership opportunities later in their careers. Longitudinal studies need to be conducted to assess the long-term effects of leadership development training interventions, to determine whether the training programs have any beneficial impact on organizational staff and assess the return on investing in these leadership training programs.

Conclusions

I conducted a center evaluation in which standardized surveys were administered online to staff members with the object of understanding the relations between leadership style, leadership outcome, dimensions of organizational climate, and organizational strategic planning.

I also assessed the indirect mediating effects of organizational climate dimensions on the relationship between leadership outcomes (effectiveness, extra effort, and satisfaction) and organizational strategic planning.

Organizational leaders and supervisors have played a crucial role within health-care centers in identifying processes, structures, and frameworks. The demographics of the sample indicated that a majority of respondents were aged between 25 and 35 years and had been with the center for at least 1–3 years. Responses from the leadership style survey showed that staff of respondents found their leaders often exhibited transformational leadership style with an effective outcome. Additionally, respondents found their supervisors to be approachable and available. However, several dimensions of organizational climate and the strategic planning process required improvement. The three main organizational climate factors that indirectly mediated the relationship between leadership outcomes and strategic planning were communication, planning and decision-making, and innovation. Thus, workplace climate holds a unique position in determining the strategic planning process thanks to leadership outcomes.

Health-science-center leaders and supervisors must self-reflect about the outcomes of their leadership style and take reformative measures to improve. Respondents sought from their supervisors improved communication, better informed planning and decision-making skills, and an innovative work environment. Therefore, policies and practices should be aimed at developing and improving these dimensions of organizational climate. Furthermore, center supervisors, managers, and leaders must work with members of their individual teams to inform them about the center's strategic planning process and how these individual teams meet the overall mission and goals. The center leaders and supervisors must provide clear and achievable strategic plans so that staff members can understand leadership directives.

Although this study had several limitations, the results provide novel insight into the needs and requirements of employees as well as the gap in leadership style and outcomes within the studied health-science center. Academic-research-center leaders may have subject matter expertise, but they often lack sound leadership training. Unique leadership training programs tailored to supervisors and leaders as well as those staff members who aspire to become leaders may provide the necessary tools for self-reflection, reformation, and improvement of the work environment and strategic plans.

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APPENDIX A

INFORMED CONSENT AND SURVEY

CONSENT STATEMENT:

The purpose of this program evaluation is to examine leadership style, leadership outcomes, organizational climate, and involvement of employees in organizational strategic planning process within the XYZ Center. You are invited to participate in this program evaluation because you are an employee of XYZ Center.

Your participation in this program evaluation is voluntary. There are 76 questions and you can skip any question that you chose not to answer. You may choose not to participate in this program evaluation or may withdraw from the answering the survey questions at any time. The procedure involves completing online surveys that will take approximately 30 - 45 minutes. Your responses will be confidential. No identifying information such as your name, email address, IP address will be collected at any time. Data will be analyzed in an aggregated manner such that no individual participant or groups of participants can be identified. The surveys will not contain information that will personally identify you.

Data will be stored in a password-protected electronic database that will be maintained by the Principal Investigator. The results of this will be used to understand and improve the Center as an organization.

Clicking on the "agree" button below indicates that:

- You have read and fully understand the above information
- You voluntarily agree to participate
- You are at least 18 years of age
- You are XYZ employee

* 1. If you do not wish to participate in this program evaluation, please decline participation by clicking on the "disagree" button.

- ☐ Agree
- ☐ Disagree

2. What is your age?

- | | |
|--------------------------------|-----------------------------------|
| <input type="radio"/> 18 to 24 | <input type="radio"/> 55 to 64 |
| <input type="radio"/> 25 to 34 | <input type="radio"/> 65 to 74 |
| <input type="radio"/> 35 to 44 | <input type="radio"/> 75 or older |
| <input type="radio"/> 45 to 54 | |

3. What is your gender?

- ☐ Male
- ☐ Female

4. Which race/ethnicity best describes you? (Please choose only one.)

- | | |
|---|---|
| <input type="radio"/> American Indian or Alaskan Native | <input type="radio"/> Hispanic |
| <input type="radio"/> Asian / Pacific Islander | <input type="radio"/> White / Caucasian |
| <input type="radio"/> Black or African American | |
| <input type="radio"/> Multiple ethnicity / Other (please specify) | |

5. About how long have you been employed with Center?

- ☐ 1-3 years
- ☐ 4 to 5 years
- ☐ 6 to 10 years
- ☐ 11 to 15 years

6. What is your supervisory status? (Check all that apply)

☐ Non-Supervisor

☐ Project Manager

☐ Laboratory Manager

☐ Program Manager

☐ Employee Supervisor

☐ Executive

☐

Other (please specify)

7. How approachable is your supervisor?

☐ Extremely approachable

☐ Moderately approachable

☐ Slightly approachable

☐ Not at all approachable

8. How available to employees is your supervisor?

☐ Extremely available

☐ Slightly available

☐ Very available

☐ Not at all available

☐ Moderately available

9. How flexible are your working hours?

☐ Very flexible

☐ Rigid

☐ Flexible

☐ Very Rigid

☐ Neither flexible nor rigid

10. How many hours do you work on a typical day?

☐ Less than 8 hours

☐ 10 hours

☐ 8 hours

☐ More than 10 hours

☐ 9 hours

11. How many days do you work in a typical week?

- ☐ Fewer than 5 days
- ☐ 5 days
- ☐ 6 days
- ☐ 7 days

Organizational Strategic Planning - I

Please provide your opinion about your organization's strategic planning process and elements.

57. Please provide your opinion about your organization's strategic planning process and elements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My organization has a clearly articulated vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My organization has clearly articulated the mission and the strategic objectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employees are able to accurately articulate the organizational values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our strategic plan greatly influences the day-to-day operations of the organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At my organization, we have been able to document significant achievements based on the implementation of our strategic plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

58. Please provide your opinion about your organization's strategic planning process and elements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Our strategic planning process at our organization is effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our strategic plan is aligned with organizational priorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employees are able to accurately articulate the organizational values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our strategic plan helps us to differentiate our organization competitively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our strategic plan enables us to capitalize on our strengths	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

59. Please provide your opinion about your organization's strategic planning process and elements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Our strategic plan enables us to minimize our weaknesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our strategic plan enables us to take advantage of suitable environmental opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our strategic plan enables us to mitigate environmental threats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The results of strategic planning initiatives are regularly communicated to key stakeholders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Implementation of strategic planning initiatives is guided by a formal, organizational priority-setting process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

60. Please provide your opinion about your organization's strategic planning process and elements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Objectives are clearly documented when strategic planning initiatives are approved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our organization uses metrics for assessing how well strategic planning initiatives are achieved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Funding for strategic planning initiatives is allocated when initiatives are approved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strategic implementation plans include intended outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strategic implementation plans specify metrics (measures) for evaluating outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

61. Please provide your opinion about your organization's strategic planning process and elements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Within my organization, strategic planning is integrated with reward structure (e.g. pay for performance)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The performance metrics that we use are well-balanced (think Balanced Scorecard)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My division has a strategic plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My division's plan aligns with the organization's strategic plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My department/division's priorities are derived from organizational priorities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

62. Please provide your opinion about your organization's strategic planning process and elements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The divisional managers are actively involved in our strategic management process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our strategic plan has an "appropriate theme"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The theme of the strategic plan is appropriately framed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our organization has a "strategy map" (pictorial summary of the strategic plan)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Organizational Climate - II

63. Please indicate whether you agree with the following statements about the **clarity of your role**.

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
I have clear goals and objectives for my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am clear about my priorities at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know what my responsibilities are.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know exactly what is expected of me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know what most people in my program do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work in the program makes the best use of people's experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know what most people around me do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know what most departments do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My program has good quality workers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

64. Please indicate whether you agree with the following statements about **respect**.

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
I feel valued by my colleagues in the Center.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I value my colleagues in the Center.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel valued by my colleagues in my program as a whole.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I value my colleagues in the program as a whole.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My Center respects other Centers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My Center is respected by other Centers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

65. Please indicate whether you agree with the following statements about **communication**.

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
I receive all the information I need to carry out my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People in the program do not spend too much time on unessentials.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am kept adequately informed about significant issues in the program as a whole.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am kept appropriately informed by the grapevine and other informal means.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My Center works well with other Centers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My Center receives all the information it needs to carry out its function well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My Center is kept adequately informed about significant issues in my program as a whole.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understand clearly how I can contribute to the general goals of my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have adequate opportunities to express my views in my Center.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My colleagues are generally eager to discuss work matters with me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, communication is effective in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I work effectively because other employees communicate regularly with me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

66. Please indicate whether you agree with the following statements about **reward systems**.

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
Good work is recognized appropriately.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think my supervisor is too tolerant of poor performers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work that is not of the highest importance is dealt with appropriately.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, people are adequately rewarded in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In my opinion, my program's pay scale is competitive with similar programs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I receive an appropriate salary.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I receive appropriate benefits.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is an appropriate difference between the pay awarded to good and bad performers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a strong sense of job satisfaction.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Virtually everyone in my program receives an appropriate salary.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

67. Please indicate whether you agree with the following statements about **career development**.

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
My work is regularly reviewed with my development in mind.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understand how the appraisal system works.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is an adequate means of appraising my performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can develop my career within my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have an opportunity to see my appraisal report and discuss it with my supervisor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, there is an adequate system for career development in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is an opportunity to work for my program until I retire.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People are promoted fairly in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My current job makes full use of my talents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career development is taken seriously in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

68. Please indicate whether you agree with the following statements about **planning and decision-making**.

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
The work of my Center is well-coordinated.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People here rarely start new projects without deciding in advance how they will proceed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, planning is carried out appropriately in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am allowed to participate sufficiently in significant decisions that affect my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am delegated work and authority appropriate to my expertise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am made responsible only for those things I can influence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My supervisor likes me to consult him or her before I take action.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have confidence in the process by which important decisions are made in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am kept well enough informed for me to make decisions well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I have the right amount of authority over my subordinates.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, delegation, responsibility, and decision making are all handled well in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

69. Please indicate whether you agree with the following statements about **innovation**.

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
I am encouraged to be innovative in my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My program is encouraged to innovate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My program plans adequately for the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My program responds promptly to new commercial and technical innovations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work methods here are quickly changed to meet new conditions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Organizational Climate - III

70. Please indicate whether you agree with the following statements about **relationships**.

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
Workers' needs are well met by my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The needs of minority employees are greatly respected here.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Virtually everyone in my program is aware of employee's needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My program is flexible in order to meet employee's needs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ways in which minority employees are treated in my program is likely to attract minority workers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

71. Please indicate whether you agree with the following statements about teamwork and support.

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
My Center collaborates well with other Centers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
By and large, people in my group do their share of work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am rarely put under undue work pressure by my colleagues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People here generally support each other well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I usually do not have to put in long hours to complete my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not feel that the pressure of work is excessive.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work rarely piles up faster than I can complete it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is rarely too much work and too little time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, this is a caring and cooperative Center.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

72. Please indicate whether you agree with the following statements about quality of service.

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
When it comes to the provision of our service, we do the best.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are proud of the quality of service that my program provides.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are proud of the quality of service in our Center.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My program has quality standards that are higher than those of its competitors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

73. Please indicate whether you agree with the following statements about **conflict-management.**

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
Conflicts are constructively/positively resolved in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We are generally encouraged to resolve our conflicts quickly rather than let them simmer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are helpful ways of preventing conflicts from getting out of hand in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is little conflict in my Center.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, conflict is managed well here.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

74. Please indicate whether you agree with the following statements about **commitment and morale.**

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
Motivation is kept at high levels in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Morale is high in my Center.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My personal morale is high.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The commitment of the staff is high in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My program solves the vast majority of its important problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud to be part of my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I am a valued member of my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general people are strongly committed to my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

75. Please indicate whether you agree with the following statements about **training and learning.**

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
There are appropriate orientation procedures in my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have received the training I need to do a good job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most of us in my program are committed to helping one another learn from our work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, my program learns as much as is practically possible from its activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The training I receive is of high quality.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get training I need to further develop my skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

76. Please indicate whether you agree with the following statements about **direction.**

	Strongly agree	Agree	Slightly agree	Neither agree nor disagree	Slightly disagree	Disagree	Strongly disagree
The future of my program has been well communicated to all employees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We all feel part of my program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am clear about the part I can play in helping my program achieve its goals.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The future objectives of my program are consistent with my personal objectives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The future of my program is bright.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The vast majority of employees share a clear understanding of where my program is going and what it is trying to achieve.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>