

PERCEPTIONS OF THE LEADERSHIP PRACTICES OF MALE AND FEMALE  
FIELD DIRECTORS AT A PHARMACEUTICAL COMPANY –  
ARE THERE DIFFERENCES?

A Dissertation

Presented to

The Faculty of

Tennessee Temple University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

By

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September 9, 2013

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## ABSTRACT

The purpose of this dissertation was to build upon the theory of transformational leadership and specifically the research of Kouzes and Posner (1995). The objective was completed by evaluating the leadership practices of Field Directors at a pharmaceutical company affiliate based in the United States. The five leadership practices evaluated in this study included: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart. The Leadership Practices Inventory for self and observer was used to survey Field Directors and the Medical Liaisons who report to them. The self-rated scores of the Field Directors were higher than the Kouzes-Posner norms. The scores given to the Field Directors by their Medical Liaisons were numerically higher than the self-rated scores of the Field Directors. The age and gender of the Medical Liaison had no effect on the perceptions of their Field Directors' leadership practices. An interesting finding was the results of the ratings of the Medical Liaisons that showed that the female Field Directors were demonstrating the five exemplary leadership practices at a higher level than the male Field Directors. This study confirmed the findings in the literature that women are more transformational leaders than men. The female Field Directors were rated higher than the male Field Directors by their Medical Liaisons in all five of the leadership practices. Four of the five leadership practices had differences that were statistically significant.

## ACKNOWLEDGEMENTS

As I complete the final step of a once overwhelming goal, I am filled with gratitude and appreciation to those who gave me the strength needed to accomplish it. I would like to express my deepest thanks to my loving family. My husband, Dr. M. Kurt McBee, was the one who inspired me to take this path and provided the encouragement and support for me to succeed. My children, Dane and Eva, were patient and understanding beyond their years and gave me the courage to persevere. My mom, Dr. Lana Jones, critiqued multiple term papers and provided much needed affirmations along the way.

In addition, I would like to thank Dr. Andrew Alexson, who served as my committee chair and guided me through the program at Tennessee Temple University. His clever insights and unique approach were inspirational. Also, I am thankful to my statistician, Dr. Susan Twaddle, my editor and reader, Dr. Lori Robertson and reader, Dr. Chuck Morris, who provided their expertise, knowledge and skill needed to complete this task. Last, I am grateful to my colleagues who participated in this study and provided many words of encouragement.

Above all else, I am thankful to my Lord and Savior, Jesus Christ whose promises never fail. Indeed, I can do all things through Him who strengthens me. -Philippians 4:13

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## CHAPTER I

### Introduction

Superior leadership performance – transformational leadership – occurs when leaders broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group.

- Bernard M. Bass, From Transactional to Transformational Leadership:  
Learning to Share the Vision

What is leadership, and why is it important? Transformational leadership has been identified as a leadership style that inspires others to excel, considers the individual needs of others and stimulates people to think in new ways (Kouzes & Posner, 1995). Over three decades ago, James MacGregor Burns (1978) completed his seminal work describing his theory of transformational leadership. Research of transformational leadership has demonstrated its many benefits to followers. For example, transformational leaders enhance the commitment, loyalty and performance of their followers (Bass, 1995). Also, it has been demonstrated that transformational leaders are evaluated by their followers as being more effective and more satisfactory than leaders with a transactional leadership style (Bass, 1995, 1999). A unique characteristic of the theory of transformational leadership is that it focuses on the effect leaders have on their followers.

In the organizational setting, good leadership is essential. Transformational leadership has been positively correlated with subordinate satisfaction, motivation and performance (Yukl, 1999). Excellent leadership at every level of the organization promotes success. Bass (1995) found that organizations with transformational leaders are more successful financially. The substantial impact of leadership on organizations explains why exemplary leadership and improving the practices of leaders is an area of great interest and significant investment in both academia and industry.

Medical Liaisons (MLs) are professionals in the pharmaceutical industry with advanced scientific degrees that provide accurate, balanced, and timely scientific data to health care professionals. Medical Liaisons work in field-based teams and act as a liaison between the Medical Affairs Department of a pharmaceutical, bio-tech or medical device company and practicing clinicians, scientists, and researchers (Dumovic & Chin, 2008). According to a pharmaceutical company website, the Medical Affairs division shares that its vision is to improve patients' lives by being medical leaders through building relationships and communicating the deepest scientific knowledge of both disease state and its treatment with health care providers and researchers. In order to accomplish this vision, the Medical Liaison completes regular visits with thought leaders who are researchers, clinicians, academicians, and practitioners. These visits include robust scientific dialogue related to new data and research. The Medical Liaison needs to have a high level of knowledge and expertise in the therapeutic area, clinical experience, or relevant research background. Medical Liaisons also apply healthcare and business expertise and demonstrate both scientific and professional leadership. In addition to these

technical and professional competencies, MLs need to have excellent communication and relationship building skills.

Medical Liaisons are highly competent professionals with complex roles within an industry that is constantly changing and evolving. These factors create the need for exemplary and inspirational leadership by those who manage Medical Liaisons. Kouzes and Posner's (2010) research reveals that leadership behavior can explain why people are more engaged and positive about their workplaces. Leaders' behavior explains nearly twenty-five percent of the reason why people feel motivated, productive, energized, effective and committed to their places of employment (Kouzes & Posner, 2010). Since leadership practices can greatly impact the success of an organization, it is important to evaluate the perceptions of these practices by both the leaders and their followers.

Research has also revealed that it is not leaders at the top of the organizational charts who have the greatest impact on the employees of the organization; employees are most impacted by their direct manager (Kouzes & Posner, 2010). The direct manager is the leader who has the most influence on his or her follower's desire to stay or leave the organization, commitment to the organization's values and mission, decision to act ethically, ability to meet performance criteria, and desire to attain individual career development (Kouzes & Posner, 2010). Based on these factors, the focus of this research was on Field Directors, who directly supervise the Medical Liaisons at a pharmaceutical company.

## Statement of the Problem

Common challenges in organizations include high turnover, poor performance, and non-engaged or unmotivated employees. The pharmaceutical industry, including the Medical Affairs Division, shares these same challenges. The satisfaction of Medical Liaisons is greatly impacted by their director. The relationship that the ML has with his or her director is the most critical question to consider when enticed with a potential move to another company (Chin, 2013). Chin (2013) stated, "...the most important relationship in their (Medical Liaisons) career is the relationship between them and their bosses". Exemplary leadership practices have been identified in numerous studies as a solution to common employment challenges (Kouzes & Posner, 1995). Leadership practices of Field Directors and the Medical Liaisons' perceptions of their Field Director's leadership practices are unknown.

## Purpose of Study, Conceptual Framework and Research Questions

The purpose of this dissertation was to build upon the research of Kouzes and Posner (1995) by evaluating the leadership practices of Field Directors at a pharmaceutical company. The conceptual framework of the study was: Exemplary leadership practices have a positive impact on followers (Kouzes & Posner, 1995). The evaluation of leadership practices includes answering the following research questions:

1. "Are there differences between the self-reported leadership practices of Field Directors and the Kouzes-Posner norms?"

2. “Are their differences between self-reported leadership practices of Field Directors and those observed by their followers?”
3. “Does the age and gender of the Medical Liaisons have an effect on their perceptions of their Field Directors’ leadership practices?”
4. “Does the gender of the Field Director have an effect on the Medical Liaisons’ perceptions of their Field Directors’ leadership practices?”

### Research Design

This quantitative study used a comparison research design to examine the leadership practices as defined in the research questions and the accompanying hypotheses. The research compared each self-reported leadership practice of Field Directors to the Kouzes-Posner norms and the Medical Liaisons’ perception of the Field Director’s leadership practice. The five leadership practices compared are: *Challenge the Process*, *Inspire a Shared Vision*, *Enable Others to Act*, *Model the Way*, and *Encourage the Heart*. Additionally, an analysis of variance was used to compare two variables, age and gender of the Medical Liaison, to determine their impact on the Medical Liaison’s perceptions of their Field Director. Last, the Medical Liaisons’ perceptions of their Field Directors’ leadership practices were analyzed to determine differences based on the gender of the Field Director. Further details are described in Chapter Three.

### Survey Methodology

The study employed the Kouzes and Posner’s Leadership Practices Inventory (1993) (self & observer) to evaluate leadership practices. The survey was sent to the Field

Directors and their associated Medical Liaisons who are employed at a pharmaceutical company. SPSS (originally Statistical Package for the Social Sciences) was used to evaluate the survey data.

## Definitions

### *Transformational Leadership*

Style of leadership with four key elements: individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence.

### *Charismatic Leadership*

Style of leadership with a focus on the behaviors and characteristics of leaders who influence others to gain their support and followership, often referred to as idealized influence.

### *Transactional Leadership*

Style of leadership that focuses on the exchange of rewards for effort and good performance.

### *Five Exemplary Leadership Practices*

Practices identified by James Kouzes and Barry Posner in *The Leadership Challenge* (1995) that are aligned with transformational leadership. These five practices include: *Challenge the Process*, *Inspire a Shared Vision*, *Enable Others to Act*, *Model the Way* and *Encourage the Heart*.

### *Challenge the Process*

Searching out new ways to change, grow, innovate and improve.

*Inspire a Shared Vision*

Envisioning an uplifting and ennobling future and sharing this vision by appealing to others and their values, interests and dreams.

*Enable Others to Act*

Collaborating with others, building trust, and promoting cooperative goals; giving power to others.

*Model the Way*

Setting an example by aligning behavior with shared values, achieving small wins to build commitment.

*Encourage the Heart*

Recognizing others accomplishments and celebrating them.

*Medical Liaisons*

Employees of a pharmaceutical company, usually health care professionals or scientists, who develop relationships with thought leaders to engage in peer to peer scientific exchange, provide research support, and answer unsolicited questions related to disease state or treatments.

*Field Directors*

Employees of a pharmaceutical company who manage Medical Liaisons and provide strategic direction and support.

### Relevance of the Study

The literature identified the benefits to organizations when their leaders effectively and frequently utilize transformational leadership style including the



exemplary leadership practices developed by Kouzes and Posner (1995). This study was important because it helped identify the self-reported leadership practices of Field Directors and their relationship to leadership norms and their Medical Liaisons' perceptions. By identifying the potential strengths as well as the gaps of the leadership practices of Field Directors, professional development and training programs could be developed to more specifically meet the needs of the Field Directors. Additionally, the results of this study may be generalizable to similar leadership teams in other pharmaceutical companies.

## CHAPTER II

### Review of Literature

This review of literature presents an overview of leadership theory, including approaches that focus on personality traits, skills, style, and situations and the current leadership theories including Contingency Theory, Path-Goal Theory, Leader-Member Exchange Theory, Servant Leadership and Transformational Leadership. The in-depth review of Transformational Leadership theory includes a discussion of its core elements, various research applications, and potential weaknesses. Also, the recent practical approach to transformational leadership developed by Kouzes and Posner in *The Leadership Challenge* (1995) is presented. The impact of gender and generations and their relationship to leadership is discussed. Lastly, leadership concepts relevant to the pharmaceutical industry and specifically to the Medical Affairs Division are reviewed.

### Leadership Theories

There are several approaches to leadership: trait approach, skills approach, style approach and situational approach. In addition to these approaches are foundational leadership theories including the Contingency Theory, Path-Goal Theory, and the Leader-Member Exchange Theory. In recent years, the concepts of Servant Leadership and Transformational Leadership have received considerable interest and research. Each of these was reviewed with related research included.

## Trait Approach

The trait approach credited such qualities as intelligence, self-confidence, determination, integrity and sociability as giving certain individuals the talents and skills to lead others (Northouse, 2010). Trait theories tribute innate talents for creating the notable leaders in history and led to the concept of the “great man” theories. Lord, de Vader, and Alliger (1986) argued that trait theories have incorrectly applied the traits of leaders to performance. They claim that the identified traits impact leader emergence. The results of their analysis identified intelligence, masculine-femininity, and dominance as traits associated with leadership perceptions (Lord, et al., 1986). Kirkpatrick and Locke (1991) identified drive, leadership motivation, honesty and integrity, self-confidence, cognitive ability, and knowledge of the business as key leader traits. They found less evidence for charisma, creativity and flexibility as leader traits. The key leader traits allow the leader to develop skills to formulate an organizational vision and develop an effective plan to achieve the vision (Kirkpatrick & Locke, 1991).

More recently, personality theories were popularized. One of the most commonly used personality theory in organizational management was the Big Five model. The Big Five assessed five factors: neuroticism, extraversion, openness, agreeableness, and conscientiousness (Northouse, 2010). The personality characteristics associated with leadership were extraversion, conscientiousness and openness. Neuroticism was negatively associated with leadership, and the trait of agreeableness had only a weak association with leadership (Northouse, 2010).

Goldberg (1990) demonstrated the generality of the Big-Five Factor structure across a comprehensive set of trait terms and suggested its utility in future studies. A

qualitative review and meta-analysis by Judge et al., (2002) indicated that the correlations of neuroticism, extraversion, openness, agreeableness, and conscientiousness with leadership were greater than 0 in 90% of individual correlations, with extraversion being the most consistent leadership correlate. Results indicated strong support for the leader trait view when organized according to the 5-factor model (Judge, et al., 2002).

Another popular trait approach focused on the idea of Emotional Intelligence (EI). There was some initial research, although more is needed, that indicated that leaders who are emotionally intelligent are more effective (Northouse, 2010). Sharma (2008) found that EI was a key predictor of transformational leadership among middle and senior level managers. Also, EI competencies of optimism, emotional self-control, and self-confidence were associated with leaders who had an internal locus of control (Sharma, 2008).

### Skills Approach

The skills approach to leadership has a similar focus on the leader; however instead of innate characteristics, this approach maintains that the needed skills and abilities to be an effective leader could be learned. In his classic work, *Skills of an Effective Administrator*, R. L. Katz (1974) identified three skills: technical, human and conceptual. These skills were needed in varying degrees at different levels of management. Technical skill was the knowledge and practical abilities needed to perform a job. Human skill was the ability to work effectively with people. The conceptual skill was related to ideas; in leadership this is often related to strategic thinking and creating vision. According to Katz (1974), first line managers primarily needed technical and human skills with less conceptual skills. Middle management needed all three of the

identified skills in equal amounts. Senior management needed human and conceptual skills with less technical skills. Katz (1974) concluded with the concept that leaders were not born, but they could be developed. Specifically, identifying the needed skills for the leadership level was most useful for selection, training, and promotion of executives (Katz, 1974). This idea is a central differentiator from the trait approach. Trait approach credited innate abilities and talents for leadership, whereas the skills approach credited the learning and development of needed skills for leadership.

The skills model was a skills approach that identified three components: individual attributes, competencies, and leadership outcomes (Northouse, 2010). This theory added that career experiences and environment could have a significant effect on each of these components. Therefore, leaders could learn and develop the various skills and talents through their work experience (Northouse, 2010). This was a very practical approach to leadership emphasizing the reality of learning through practice, both successful and failed experiences, and the environment in which one practiced.

### Style Approach

The style approach focuses on the behaviors of leaders, specifically, task behavior and relationship behavior. An example of this approach was Blake and Mouton's Managerial Grid (Northouse, 2010). It evaluated a leader's style based on his or her concern for people versus his or her concern for results. High concern for people with a low concern for results created a "country-club management" style; whereas, high concern for results with low concern for people resulted in "authority-compliance management" style. It has been assumed that "team-management" was the best type of

leadership style which is one that has a high concern for both result and people; however, certain situations may be better managed by one of the other styles (Northouse, 2010). When concern for people and task was at a medium level, this was “middle of the road management” and when it was at a low level, this was called “impoverished management”.

Blake and Mouton (1981) presented evidence to support their approach to leadership. One was that their 9,9-oriented leadership is possible with subordinates at varying maturity levels (Blake & Moulton, 1981). Also, their approach is judged by managers to be a more effective basis for dealing with a variety of situations (Blake & Moulton, 1981). Last, when compared to other leadership approaches, the style approach promotes involvement and commitment of constituents instead of a reward system based on compliance as seen in other theories.

To contrast the style approach with transformation leadership theory, concern for task was similar to the characteristics of transactional leadership and concern for people was similar to the characteristics of transformational leadership. Effective leaders preferentially used transformational practices but also had the ability to engage transactional practices when needed in order to provide needed direction to accomplish individual as well as organizational goals (Bass, 1999; Conger, 1999).

### Situational Approach

Another popular concept in management theory is the situational approach to leadership. According to Blanchard and Hersey (1969), this approach asserted that leaders change their style to fit the situation. The situational approach model was further

refined Ken Blanchard, Patricia Zigarmi and Drea Zigmari (1985). This model identified four leadership styles, delegating, supporting, coaching and directing that are used by leaders. The style used was dependent on the development level of their followers (Blanchard, et al., 1993). There are four development levels. Level one was defined as low competence but high commitment, typical of a newly hired or promoted employee. Level two was defined as some competence, but low commitment. Employees with high competence and variable commitment were at development level three. Development level four was defined as high competence and high commitment (Blanchard, et al., 1993).

Research of this model has strengthened the instrumentation used to measure situational leadership concepts of style, flexibility, and effectiveness (Blanchard, et al., 1993). Additional research indicated that when appropriate amounts of direction and support were used by managers, higher levels of morale and employee satisfaction resulted (Blanchard, et al., 1993).

Similar to the concepts of situational leadership, Casimir (2001) identified that there are times when a transactional style of leadership may be most effective and other situations may require transformational leadership to produce the best outcomes. Job satisfaction, willingness to work, and performance were rated highest when leaders implemented characteristics of both transactional and transformational leadership (Casimir, 2001).

### Contingency Theory

The contingency theories are concerned with styles and situations (Northouse, 2010). The primary contingency theory was presented in its most complete form by

Fiedler (1967) and Fiedler and Chemers (1974). The contingency model was developed through a series of experiments in diverse settings, from military squads to church groups (McMahon, 1971). The theory proposed that the effectiveness of a leader was based on the least preferred co-worker (LPC) and the favorableness of the situation (McMahon, 1971). A high LPC score indicated a highly relational leader, and a low LPC score indicated a task-oriented leader (McMahon, 1971). The favorableness of the situation was based on the leader-member relationship, task structure, and the position power of the leader (McMahon, 1971).

The results of this theory have been criticized. McMahon (1971) identified these four conclusions regarding the LPC scale: “The LPC construct lacks explanatory power, the validity and reliability of the measure is questionable, research presented on LPC offers conclusions which are contrary to the assumptions of Fiedler and LPC is supposed to measure need structure, but there is a lack of studies testing this point” (p. 702). In addition, McMahon (1971) identified concerns related to other aspects of the theory including the leader-member relations and position power. Ashour’s (1973) evaluation of the contingency model yielded similar concerns and stated that “The cumulative empirical evidence indicates that the major hypothesis of the model is not conclusively supported” (p. 339).

Despite its criticism, the contingency model was one of the first leadership theories that was both multi-level and methodologically multisource. Specifically, two sources, motivation and situations, were measured by two levels, the leaders and the followers. A third source, the outcome, was assessed by the group performance which is a third level. (Ayman, Chemers, & Fiedler, 1995). The contingency model of leadership



contributed the importance of situation to leadership because it allowed for leaders to be more effective in certain situations versus others. Further, it provided useful leadership profile data (Northouse, 2010).

### Path-Goal Theory

According to House (1995), “The path-goal theory of leadership effectiveness was developed to reconcile prior findings and anomalies resulting from empirical investigations of the effects of leader task orientation and leader person orientation on subordinate satisfaction and performance” (p. 324). In other words, this theory focused on how leaders motivated their followers to reach their goals (Northouse, 2010) and how leaders affected satisfaction of their followers (House, 1995). According to House (1995), leaders would be more effective if they provided the needed cognitive clarifications for their followers to achieve their work goals. Intrinsic satisfaction and extrinsic rewards would be the result of reaching these goals (House, 1995). The majority of the responsibility is on the leader to provide the needed resources and support for followers to achieve their work goals.

House and Mitchell (1974) defined four specific behaviors of leaders to satisfy the needs of subordinates: directive behavior, supportive behavior, participative behavior, and achievement oriented behavior. “The theory predicts that followers whose jobs are satisfying, but which have unclear performance demands, will view non-authoritarian leader directive behavior as satisfying and instrumental for performance. In contrast, followers whose jobs are dissatisfying, but which have unambiguous performance

demands, will view leader directive behavior as over controlling and dissatisfying” (House, 1995, p. 330).

Analyses found that this theory resulted in the development of tests that have multiple interpretations that do not have the required validity (House, 1995). The lessons learned from this are that with each new theory, validated measures need to be developed to test the theory. Despite this shortcoming, the original path-goal theory led to the development of additional leadership theories including the 1976 theory of charismatic leadership, the value based theory of leadership, and the reformulated path-goal theory (House, 1971).

House (1995) reformulated his original theory and provided twenty-six propositions related to path-goal clarifying behaviors, achievement oriented leader behavior, work facilitation, supportive leader behavior, interaction facilitation, group oriented decision process, representation and networking, value-based leadership, and shared leadership (House, 1995). These propositions were relevant to the eight classes of leader behaviors that enhance work performance and satisfaction when exercised under specified conditions. The theory was intended to identify which behaviors are likely to be effective or ineffective in certain circumstances. In addition, the reformulated theory addressed the concept of empowerment of followers and self-efficacy (House, 1995).

In summary, this theory focused on how leader behavior motivates their followers to reach specified goals by improving job satisfaction and work performance (Northouse, 2010). The challenge of implementing this theory into practice is its complexity and limited validity. Also, the relationship between leaders and their follower’s motivation is not clearly defined (Northouse, 2010).

## Leader-Member Exchange Theory

The Leader-Member Exchange Theory is unique because of its focus on the interactions between leaders and followers. The dyadic relationship between leaders and followers was central to this theory instead of the skills, traits, and style of the leader (Northouse, 2010). The initial research was called the vertical dyad linkage (VDL) theory; however, there have been many refinements to the theory, and it has “progressed to a prescription for generating more effective leadership through the development and maintenance of mature leadership relationships” (Graen & Uhl-Bien, 1995, p. 220). The central idea of this theory was that effective leadership processes occurred when leaders and followers were able to develop mature relationships in order to achieve the benefits of these relationships (Graen & Uhl-Bien, 1995).

Three domains of leadership were identified as the leader, the follower, and the relationship. This three-domain approach created a need for additional levels to be considered. These levels include the dyadic relationship between the leader and the follower. Leadership theory could be evaluated at each of these levels. For example, trait and behavioral theory focus on the leader, LMX theory focuses on the relationship between the leader and the follower and situational theories focus on the combination of the leader, follower and their relationship. The multi-level and domain investigations integrate the theories and provided a broader understanding of leadership (Graen & Uhl-Bien, 1995).

Two types of relationships were defined in the theory: high quality relationships were “in-group” and low quality relationships were “out-group” (Graen & Scadura, 1987). Those with “in-group” relationships with their supervisors had better performance

and took additional responsibilities. Mutual trust, support, autonomy, job satisfaction, and loyalty resulted from these relationships (Truckenbrodt, 2000). Subordinates with “out-group” relationships performed only the prescribed tasks and rarely did more; there was little trust, support or rewards (Deluga, 1998). In addition, Truckenbrodt (2000) concluded that the quality of relationships also affected the commitment and good will of subordinates. Gerstner and Day (1997) conducted a meta-analysis of the leader-member exchange literature. Their results suggested that significant relationships exist between LMX and job performance, overall satisfaction, satisfaction with supervisor, commitment, role conflict, role clarity, competence, and turnover intention.

In regards to the concept of transactional and transformational leadership, the LMX model had components of both of these approaches. Initial relationships were transactional and could build and become transformational in the more advanced dyads (Graen & Uhl-Bien, 1995). “In-group” relationships become transforming whereas “out-group” relationships remain limited to transactions.

Northouse (2012) added these comments about LMX theory, “it tells us to be fair to all employees and allow each of them to become as involved in the work of the unit as they want to be... to be respectful and to build relationships with all of our subordinates, recognizing that each employee is unique and wants to relate to us in a special way” (p. 158).

### Servant Leadership

Servant Leadership is a philosophy of leadership that was developed by Robert Greenleaf (1977) in his work *Servant Leadership: A journey into the nature of legitimate power and greatness*. Characteristics of servant leadership include altruistic calling,

emotional healing, wisdom, persuasive mapping, and organizational stewardship (Rodin, 2010). Servant leaders make the conscious decision to serve others first and put their aspirations, needs, and interests above their own (Greenleaf, 1977). The first servant-leader who practiced this type of leadership was the founder of Christianity, Jesus Christ (Sendaya & Sarros, 2002). His teaching to the disciples recorded in Matthew 10:43 was, “Not so with you. Instead, whoever wants to become great among you must be your servant.” In addition to his teachings, Jesus Christ practiced servant leadership; for example, he washed his disciples’ feet, which was one of the most demeaning practices of the time (Sendaya & Sarros, 2002). Foot washing was provided by the house servant, or if there was not a servant, the lowest-ranking guest. Jesus, as the guest of honor, provided a profound demonstration of servant leadership.

Charismatic leadership has been compared to servant leadership; both sharing biblical roots (Sendaya & Sarros, 2002). Sociologist Max Weber (1947) defined charisma as “a quality of an individual personality by virtue of which he (the leader) is set apart from ordinary men and treated as endowed with supernatural, superhuman or at least specifically exceptional qualities” (p. 48). Charismatic leadership has been significantly researched and rigorously tested; whereas, servant leadership has not been researched and tested (Sendaya & Sarros, 2002). Charismatic leadership is often mentioned as a component of transformational leadership; however, Bass (1998) defined transformational leadership as charismatic and intellectually stimulating (Graham, 1991).

Morality is relevant to the concept of servant leadership. Burn’s (1978) concept of transforming leadership included an emphasis on moral development; whereas, Bass’

(1988) concept did not include this component (Graham, 1991). Servant leadership in organizations emphasizes morality (Graham, 1991).

Graham (1991) eloquently integrated several concepts of leadership in her statement,

“...setting the stage for good moral dialogue in organizations requires that leaders serve as practitioners of art, not just pious preachers of organizational philosophy. Their actual behavior will include sensitivity to the needs and interests of all organizational stakeholders (like Burn’s transforming leaders), and provision of opportunities for wide participation in discussions about policies and practices. These safeguards increase the likelihood that leaders fulfilling their responsibility to make timely decisions in the face of uncertainty and conflicting views will do so on the basis of relational rather than unilateral power” (p. 112).

She further claimed that servant leadership accomplished the prioritization of relational power by making the highest priority of the leader the needs of those being served (Graham, 1991).

Russell and Stone (2002) aimed to develop a researchable model of servant leadership. Nine functional attributes and eleven accompanying attributes of servant leadership were identified in the literature (Russell & Stone, 2002). The functional attributes included: vision, honesty, integrity, trust, service, modeling, pioneering, appreciation of others, and empowerment. The eleven accompanying attributes included: communication, credibility, competence, stewardship, visibility, influence, persuasion, listening, encouragement, teaching, and delegation. These attributes can provide the basis

for a model of servant leadership ((Russell & Stone, 2002). The structural foundation for research as well as implementation of the servant leadership theory more broadly in organizations is provided by this model (Russell & Stone, 2002).

### Transformational Leadership

Transformational leadership is a concept that focuses on the effect leaders have on their followers. A paradoxical shift occurred with the development of this theory from former works on leadership such as trait, skills, and style approaches which focused primarily on the characteristics of the leader.

Max Weber's (1922) idea of charismatic authority was one of the first concepts relevant to transformational leadership. He defined charismatic authority as "resting on devotion to the exceptional sanctity, heroism or exemplary character of an individual person, and of the normative patterns or order revealed or ordained by him" (p. 215). Theories of transformational and charismatic leadership emphasized emotions and values (Yukl, 1999). Charisma was seen as an attribute of transformational leaders (Jacobsena & Houseb, 2001).

James MacGregor Burns (1978) introduced the concept of transforming leadership in his seminal work, *Leadership*. He described the interactions between leaders and their followers on a spectrum that ranges from transactional leadership to transformational leadership. Bernard Bass (1999) further developed Burns' work and replaced the term "transforming" with "transformational". According to Bass (1999), "transactional leadership refers to the exchange relationship between the leader and follower to meet their own self-interests" whereas "transformational leadership refers to

the leader moving the follower beyond immediate self-interests through *idealized influence* (charisma), *inspiration*, *intellectual stimulation*, or *individualized consideration*” (p. 10 – 11). These are the four factors that created transformational leadership. There are two factors that described transactional leadership and one factor that described the absence of leadership.

The first factor of transformational leadership is *idealized influence* (Northouse, 2010). Idealized influence was the term Bass substituted for the previous idea of charisma and is defined as being influential about ideals (Bass, 1999). Leaders with *idealized influence* were able to gain the trust of their followers and be role models (Northouse, 2010). In addition, Bass (1999) described these leaders as being able to create the vision and the path to achieve it through high standards of performance, determination, confidence, integrity and character.

*Inspiration* is the second factor of transformational leadership. *Inspiration* is closely associated with the charismatic leadership and conveys the ability of leaders to motivate their followers and be dedicated to achieving the vision of the organization (Conger, 1999).

Maslow’s Hierarchy of Needs theory (1954) described human development as progressing through five hierarchies of needs: physiological needs, safety needs, the need to belong, needs of self-esteem, and finally, self-actualization. Transformational leaders take their followers beyond meeting their own needs to an aspiration to meet the needs of the organization. Transformational leaders display greater citizenship behaviors such as altruism and civic virtue and strived to instill these values in others (Bass, 1999). These



leaders align their followers' self-interests in their own development with those of the organization (Bass, 1999).

The third factor of transformational leadership is *intellectual stimulation*.

*Intellectual stimulation* involves encouraging followers to be both innovative and creative (Bass, 1999). Challenging the beliefs and values of self, the leader, and the organization are also characteristics of *Intellectual Stimulation* (Bass, 1999). Leaders who possess this factor promote intelligence, rationality, and careful problem solving (Bass, 1985).

Transformational teams intellectually stimulate and challenge each other (Bass, 1999). In addition, organizations can also promote transformational behavior by establishing a culture that is supportive of innovation and creativity (Bass, 1999).

The fourth factor of transformational leadership is *individualized consideration* (Bass, 1999). These leaders are focused on their followers and how to provide growth and development opportunities that allow them to achieve their goals. The direction and coaching provided by leaders is for the benefit of the follower. *Individualized consideration* embraces a culture of support, listening, and true care and concern for others (Bass, 1999).

Factors five and six are relevant to transactional leadership. The fifth factor is *contingent reward*, which is the exchange of rewards for effort (Northouse, 2010). The transactional leader directs the follower on what needs to be done in order to receive a reward, typically a paycheck. The sixth factor is *management by exception*, which is when critical, negative, and harsh feedback is used to reinforce desired behaviors. It can be either passive or active. Passive managers wait for a problem to occur before taking any action; whereas, active managers monitor their followers to determine if they are

meeting the set standards of performance (Bass, 1999). This type of management prevents a trust relationship; without trust, it is difficult for leaders to experience transforming relationships. Essentially, transactional leadership refers to the exchange relationship that exists between a leader and a follower to meet their self-interests and desires with no concern for others (Bass, 1999).

Lastly, the seventh factor is when there is no leadership, *laissez-faire*. These managers fail to take any action (Bass, 1999). There is a lack of decision making, direction setting, feedback, and relationship with followers. *Laissez-Faire* managers prefer not to have relationships with their constituents (Northouse, 2010).

Conger (1999) elaborated on the difference between the concepts of transactions and transformation and promoted the need for a change in terminology. Individuals who relied primarily on transactional methods of influence should be called “managers or supervisors” instead of leaders. Leaders should utilize the transformational factors to influence others (Conger, 1999).

The interplay between the leader and the context also needs to be considered when evaluating leaders. Certain situations are more conducive to transformational leadership including stressful or crisis situations, times of uncertainty, or entrepreneurial environments (Conger, 1999). Additionally, four factors of organizations that affect the acceptance of transformational leadership have been identified. These factors include: the organizations’ emphasis on efficiency versus adaptation, the relative dominance of the organizations’ technical core versus boundary expanding, organizational structure, and modes of governance (Conger, 1999). Organizations that have an affinity to change and

adaptation, expanding boundaries, simple structures, and clan modes of governance are most conducive to transformational and charismatic leadership (Conger, 1999).

Other essential functions of leadership include its influence on culture, structure, technology and management systems (Yukl, 1999). Transformational leaders are instrumental in implementing systems and processes, providing needed accountability, and promoting the values of their organizations (Yukl, 1999).

There have been many studies of the effects of transformational leadership on followers in organizations. Howell and Avolio (1993) evaluated seventy-eight managers and found that transformational leadership measures were associated with higher internal locus of control and positive business performance; whereas, transactional measures of leadership were negatively associated with business unit performance. Bass (1999) found that investigations of transformational leadership in organizations confirmed its utility for increasing organizational satisfaction, commitment, and effectiveness. Keller (1992) evaluated the performance of research and development project groups and concluded that transformational leadership was a stronger predictor of project quality ratings for research projects, but less for development projects. Lastly, a field experiment evaluating the impact of transformational leadership on follower development and performance indicated that leaders who received transformational leadership training had a more positive impact on follower's development and on indirect followers' performance (Dvir, Eden, Avolio, & Shamir, 2002).

In summary, transformational leaders enhanced the commitment, loyalty, and performance of their followers. In contrast, transactional leaders could be effective at producing required results, but rarely achieved more (Bass, 1999). Research has

demonstrated that transformational leaders were evaluated by their followers as being more effective and more satisfying than transactional leaders (Bass, 1990). Lastly, organizations with transformational leaders were more successful financially (Bass, 1995).

### The Leadership Challenge

Kouzes and Posner (1995) developed a transformational leadership model through case studies and survey questionnaires. Over 1300 interviews of leaders describing their personal best led to the identification of five fundamental practices of exemplary leadership. These practices included: *Challenging the Process*, *Inspire a Shared Vision*, *Enable Others to Act*, *Model the Way*, and *Encourage the Heart* (Kouzes & Posner, 1995).

*Challenge the Process* described the practice of leaders to take risks, to be innovative and to challenge the status quo (Kouzes & Posner, 1995). When leaders take risks, it creates the potential to fail. The other important attribute of this practice is that leaders are willing to learn from their failures. For leaders, it is more important to make mistakes in the effort to be supportive of new ideas and foster innovation than to remain stagnant and not take action.

According to Kouzes and Posner (1995), leaders do not command commitment, they inspire it. They accomplish commitment through a shared vision. *Inspiring a Shared Vision* is the ability of a leader to see a potential future and motivate others to pursue it. Leaders are able to accomplish this by having a clear understanding of the hopes and dreams of their followers. Leaders are able to create a unified purpose that benefits the entire organization and its constituents.

*Enabling Others to Act* is a fundamental practice summarized by Kouzes and Posner (1995) as the understanding that leadership is not provided by an individual, but by a team of individuals. To be successful, leaders needed to have the support and assistance from others throughout the organization. Kouzes and Posner (1995) stated succinctly, “Leaders enable others not by hoarding the power they have but by giving it away” (p.12). It is now recognized that collaboration is one of the consistent, key components of success for today’s leaders.

Leaders set the example for others to follow. According to Kouzes and Posner (1995) *Modeling the Way* allows leaders to build their credibility and trust. In order to set a personal example and execute effectively, leaders needed to be strong in their beliefs and convictions and act in a manner that is consistent with them (Kouzes & Posner, 1995). If a leader fails to align his or her actions with their beliefs and values, credibility and trust is damaged (Kouzes & Posner, 1995). Additionally, congruence between personal and organizational values results in greater commitment to the organization (Kouzes & Posner, 1995).

Kouzes and Posner (1995) discussed the importance of rewarding others for their accomplishments and recognizing their contributions. Furthermore, visibly linking performance and behaviors with rewards and recognition is how transformational leaders *Encourage the Heart* (Kouzes & Posner, 1995). Recognition and praise needed to be authentic to be effective. The result of authentic encouragement is a sense of a greater collective identity and community spirit (Northouse, 2010). In addition to encouraging their followers, leaders also have the ability to encourage themselves (Kouzes & Posner, 1995).

Kouzes and Posner's (1995) model of leadership is consistent with transformational leadership theory in that the five practices they described can be learned and developed. Unlike the innate capabilities of leaders described in trait theories, these practices are recommended to all leaders who want to achieve transformational relationships with their constituents.

Kouzes and Posner's (1995) model of leadership has been extensively studied in various populations and contexts. A study focused on the leadership skills and practices of NASA scientists found that the project scientists who were rated as very effective and extremely effective had significantly higher scores on all five leadership practices than those rated as somewhat effective (Day, 2003). A study of nurses in Turkey found that leadership practices were significantly correlated with organizational commitment but not with job satisfaction or intention to leave (Abaan & Duygulu, 2006). Francis (2008) examined the leadership practices of Nurse Practitioners and found that the most frequently used leadership practices were *Model the Way* and *Challenge the Process* and concluded that "NPs consider leadership practices to be part of their nursing and professional role" (p. 80). Nurse executives at a Veterans Affairs Medical Centers reported using *Engaging* most frequently (Bieber, 2003). An earlier study of VA nurses found that *Enabling Others to Act* was ranked first by nursing leaders (Bradley-Magnuson, 1996). Last, a study of physician leaders reported more frequent use of all five leadership practices than did the Kouzes Posner normative database (Essex & Marr, 1995).

### Potential Weaknesses in Transformational Leadership Theories

The primary criticism of transformational leadership theory is that it lacks conceptual clarity (Yukl, 1999). According to Yukl (1999), conceptual weaknesses of transformational theory include “ambiguous constructs, insufficient description of explanatory processes, a narrow focus on dyadic processes, omission of some relative behaviors, insufficient specification of limiting conditions (situational variables), and a bias toward heroic conceptions of leadership” (p. 286). However, models like Kouzes and Posner’s (1995) five exemplary leadership practices provide additional conceptual clarity.

### Leadership and Gender

Increasingly, women are becoming leaders in politics, academia, and business. This has spurred a body of research investigating gender differences in leadership. This discussion focuses on the research that specifically examined gender differences on transformational leadership and the perceptions of gender in leadership. According to Bass (1999), women tend to have more transformational characteristics than men. Furthermore, both male and female subordinates reported greater satisfaction with these female leaders (Bass, 1994). Women were rated higher as having more idealized influence, being more inspirational, and being more individually considerate than their male counterparts (Bass, 1994).

Carless (1998) concluded that superiors evaluated female managers as more transformational than their male managers. Female managers also perceived themselves as higher on interpersonal and transformational leadership behaviors than their male

counterparts. However, subordinates rated their male and female leaders equally. These results show the importance of examining the gender differences in leadership practices (Carless, 1998).

A meta-analysis of 45 studies evaluating leadership styles, including transformational, transactional and laissez-faire, concluded that women were more transformational leaders than men (Eagly, et al., 2003). Men rated higher on aspects related to transactional and *laissez-faire* style of leadership. The differences were small but positive, because transformational leadership has been indicated to be more effective than other styles of leadership (Eagly, et al., 2003).

There are studies that evaluated the perceptions of gender in leadership based on gender role congruity. Gender role congruity describes the compatibility that exists between gender and roles, including leadership roles (Eagly & Karau, 2002). In general, men are more associated with roles of power, competition and authority; whereas, women are more associated with roles that involve caring, support and human interactions. The characteristics of leadership are more associated with the men than women (Eagly & Karau, 2002, Garcia-Ratembero & Lopez-Zafra 2006). Garcia-Ratembero and Lopez-Zafra (2006) state, “As a consequence, it is assumed that leadership is more congruent with the masculine gender roles than the feminine gender role” (p.51). The prejudice of male or female candidates for leadership positions in industries that were incongruent with the candidate’s gender role was studied (Garcia-Ratembero & Lopez-Zafra, 2006). Their results found that there was prejudice shown against female candidates when they worked in an industry incongruent with their gender role. This prejudice was particularly pronounced when the evaluation was made by female and older participants (Garcia-



Ratembero & Lopez-Zafra, 2006). These results supported the congruity theory by Eagly and Karau (2002) which indicated that prejudice against female leaders varies with the amount of incongruity between the leadership role and the feminine gender role.

Vinkenburg et al. (2011) recognized the potential positives related to women's ability to practice transformational leadership. They also acknowledged the congruity theory and need for women to handle the mismatch between the leader role and the female gender-role effectively. Their research concluded that women can achieve success, defined as promotion, by demonstrating both sensitivity and strength and blending inspirational motivation with communal behavior in order to achieve promotion. Although women face some unique challenges as leaders, the feminine role also provides some advantages that have yet to be fully realized in the workplace (Vinkenburg et al., 2011).

A study of leadership and gender in public relations that evaluated the perceived effectiveness of transformational and transactional leadership styles concluded that survey data supported a strong preference for transformational leadership style over transactional leadership style (Aldoory & Toth, 2009). These findings support a strong relationship between positive follower attitudes and transformational leadership. The Leadership Preferences Index score revealed slightly higher transformational leadership scores for women as compared to men (Aldoory & Toth, 2009).

Kouzes and Posner's model has also been researched in women leaders. One study evaluated the leadership styles of women managers and women owners of manufacturing and found that the women rated themselves as having a relatively high degree of leadership practices including challenging, inspiring, enabling, and modeling

and moderate degree of encouraging (Reiter, 1977). A more recent study compared the self-rated leadership practices of male and female managers in Southern California and China (Hsiao-Kuang, 2011). This study found no significant differences in leadership practices on the basis of gender or geographical region. A study of gender differentiated values and leadership behaviors as rated by followers also found no differences on the LPI between male and female managers (Kahl, 1999). Last, a study of self-rated leadership practices of women in local government concluded that “women executives in local government lead by acknowledging their employees with acts of appreciation” (Green, 2012, p. 80).

### Leadership and Generations

For the first time in modern history, there are four generations working in today’s workforce. These generations include the Traditionalists, the Baby Boomers, the Gen X-ers and the Millennials. Traditionalists were born before 1945. Baby Boomers were born between 1946 – 1964, Gen X-ers were born between 1965 – 1980, and Millennials were born between 1981 – 2000. Unlike previous times, these generations are working side by side. Longevity is no longer the deciding factor for promotion; merit, performance, and achieving results have greater contribution to advancement (Gursoy, Maier, & Chi, 2008). Therefore, Traditionalists, Baby Boomers, Gen X-ers and even Millennials are competing for the same positions. It is not uncommon for younger workers to be supervising older, more tenured employees (Gursoy, et al. 2008).

It has been noted that there are many differences in these generations related to attitudes about work, use of technology, approaches to life, priorities and the like (Gursoy, et al.. 2008). Many of these preferences significantly affect the workplace. The

differences pertinent to this research were individual's attitudes about leadership and authority and beliefs about promotions and rewards.

Lieber (2010) defined Traditionalists as respectful of authority and having a preference for a commanding and direct leadership style. Further, they viewed work as an obligation, but were hard, dedicated workers and followed the rules. They believed that promotion and rewards come with tenure and loyalty to the company. Traditionalists disengaged if experience and historical knowledge were not valued by leadership (Lieber, 2010).

Gursoy et al. (2008) described Baby Boomers as the largest generation in the workforce and representative of two-thirds of all U.S. workers. Baby Boomers were typically known for challenging authority and were often characterized as rebels forced to conform (Lieber, 2010). However, a study by Gursoy (2008) found that Baby Boomers respect authority and hierarchy. Baby Boomers pursued high achievements and required external recognition including monetary rewards, but had difficulty sharing accolades (Lieber, 2010). This generation was concerned that technology was negatively impacting the workforce by minimizing personal interaction and preferred one to one communication. Baby Boomers disliked current trends of working from home and flex-time (Lieber, 2010).

Gen X-ers grew up in a rapidly changing social climate marked with economic recession, rising divorce rates, and two-career households (Gursoy, et al. 2001). It is no wonder that they were fiercely independent and entrepreneurial. They believed in gaining skills that they could take with them to other organizations. They continuously re-evaluated their career path. Generation X appreciated a healthy work-life balance. They

were not willing to sacrifice their life outside of work for the company. Gen X-ers “worked to live”, rather than “lived to work” (Gursoy, et al. 2001). This generation preferred clear communication from management followed by autonomy to get the job done. For Generation X, freedom was the greatest reward (Mann, 2006).

The newest generation to enter the workforce, the Millennials, was similar to Gen-X in their desire for work-life balance, lack of company loyalty, and entrepreneurial spirit. They were very social and confident. Unlike the previous generation, millennials trusted centralized authority, believed in collective action, and had an optimism of the future (Gursoy, et al. 2001). This generation had close relationships with their parents, was involved with their communities, and was more ethnically diverse than previous generations (Mann, 2006).

Millennials grew up with technology making them the most technologically adept generation. This generation believed that the work one does is more important than the amount of money made (Mann, 2006). Millennials in the work place benefited from being challenged, collaborating and being part of a team, having a mentor, and receiving timely feedback. They were fast learners but could be impatient. Millennials had high expectations of their leaders and expected flexibility and frequent rewards and recognition (Mann, 2006).

Kouzes and Posner (2010) provided their insights related leadership and generations and stated,

“When it comes to generating positive work attitudes, it doesn’t matter if you’re a Traditionalist, a Boomer, a Gen-Xer, or a Millennial. Good leadership is good

leadership regardless of age....the context of leading may change a lot, but the content of leading changes very little” (p. xvii).

The Kouzes and Posner model has been used to study the impact of leadership practices on Generation X employee commitment in the health insurance industry (Artley, 2008). Artley (2008) found a statistically significant relationship between organizational commitment and all five leadership practices. Further, the author concluded, “leaders in this industry can accomplish significant achievements through these Gen X employees by using the five leadership practices strategies (Artley, 2008, p.90). A study comparing generational competency to leadership effectiveness did not find a correlation that was statistically significant (Grafton, 2010).

Perceptions of leadership can be impacted by the age of the person completing the evaluation. Having an understanding of generational norms can increase understanding of expectations and can add insight when considering leadership feedback.

### Medical Liaisons and Field Directors

Medical Liaisons (MLs) are field based medical professionals employed by the pharmaceutical industry to provide clinical and scientific support to health care professionals, researchers, and academicians. Field based medical support began in 1967 at the Upjohn Company (Morgan, Domann, Collins, Massey, & Moss, 2000). Initially, there was a scientifically savvy group of sales representatives who began calling researchers, thought leaders, and investigators in order to improve the image of the company (Morgan, et al. 2000). Later this group evolved to include therapeutic experts, adult education experts, and management. Due to continuous changes in the healthcare

landscape and regulations, the Medical Liaison evolved to include primarily health care professionals and doctoral level scientists who are able to have peer to peer exchange. The focus of Medical Liaison organizations was to build scientific excellence and integrity in the health care community (Morgan, et al. 2000).

The activities of Medical Liaisons included providing proactive on-label information for medications as well as off-label information in response to unsolicited requests. Developing thought leaders, reporting drug safety, supporting clinical research trials, guiding investigator initiated study process, providing formulary presentations and general education programs were all activities that Medical Liaisons were involved in (Morgan, et al., 2000). It was important for Medical Liaisons to be expert communicators, have strong interpersonal and relationship building skills, and have strong presentation and facilitation capabilities in addition to their clinical and scientific expertise.

Furthermore, Medical Liaisons needed to be able to work in a complex and changing environment in order to be successful in this role. Since the position is field based, MLs needed to be proficient in technology including use of computers, tablets, e-mail, and web-based communication (Morgan, et al., 2000). Since MLs worked from home offices, they needed to be self-motivated and highly driven. Goals and expectations of Medical Liaisons were set at a very high level and excellent performance was the expectation. The complexity of the ML role and the changing healthcare landscape required that the directors who manage MLs were not merely good managers, but also had excellent leadership abilities (Morgan, et al., 2000).

Shamir and Howell (1999) provided several propositions that influenced the need for and the effectiveness of charismatic leadership in organizations. Two of these propositions were particularly aligned with the pharmaceutical industry and the role and responsibilities of Medical Liaisons. These two propositions stated:

Charismatic leadership is more likely to emerge and be effective in dynamic organizational environments that require and enable the introduction of new strategies, markets, products and technologies (p. 265).

Charismatic leadership is more likely to emerge and be effective when the tasks of organizations members are challenging and complex, and require individual and group initiative, responsibility, creativity and intense effort (p. 277).

Managers of Medical Liaisons, or Field Directors, were middle managers who were responsible to provide daily direction, motivation, and support for their ML teams. One leadership study concluded that only managers at the very top of the organization could provide charismatic leadership (Katz & Kahn, 1978). This study proposed that direct supervisors were unable to hide their weaknesses from followers and were therefore unable to be transformative (Katz & Kahn, 1978). However, other research refuted this assumption and has demonstrated the possibility of charismatic leadership in middle and lower management levels (Shamir & Howell, 1999). Bass and Avolio (1993) concluded from their research that transformational leadership applies to all levels of leadership.

Executive level leaders demonstrated charisma through their vision for the company, planned speeches at large meetings, and developing the company culture. For lower level managers their opportunity to provide transformational leadership was by empowering their teams through their support, coaching and encouragement, and by setting a personal example for their team to follow (Shamir & Howell, 1999). Field Directors work directly with their Medical Liaison teams and have the opportunity to be transformational leaders by inspiring and motivating their teams. These concepts supported two additional statements related to charismatic leadership proposed by Shamir and Howell (1999) that are relevant to the management of Medical Liaisons:

Charismatic leadership is more likely to emerge at the top level of the organization than at lower levels. However, charismatic leadership is not restricted to the top organizational level (p. 277).

Charismatic leadership at higher organizational levels will rely on image building, articulation of a strategic vision, rhetorical skills and symbolic activities to produce charismatic effects on followers, while charismatic leadership at lower organizational levels will rely on personal role modeling, building a collective identity within the team and conveying confidence in followers' capabilities (p. 277).

Likewise, these concepts are aligned with Kouzes and Posner's (1995) exemplary leadership practices. Specifically, these were similar to three of the five leadership practices including, *Model the Way*, *Enable Others to Act*, and *Encourage the Heart*.



## CHAPTER III

### Methodology

This chapter presents the research design, which was a quantitative study using a survey instrument. The population and sample are identified and the procedures for collecting data and statistical analysis are discussed.

#### Purpose of the study

The purpose of this study was to evaluate the self-reported leadership practices of Field Directors at a pharmaceutical company and compare the results to the published norms. The Medical Liaisons' perceptions of the leadership practices of their Field Directors were also compared to the self-reported leadership practices of their Field Directors. Additionally, the impact, if any, of the age and gender of the Medical Liaison on their evaluation of their Field Director was determined. Lastly, the impact of the Field Director's gender, if any, on their Medical Liaison's perceptions of their leadership practices was analyzed. The thesis of this study was: Field Directors' self-reported leadership practices and how they compare to published norms and the perceptions of their Medical Liaisons are unknown. The thesis was tested by utilizing a leadership measurement instrument and applying statistical analysis to the data received.

#### Data Analysis

The data analysis was determined by the following research questions and hypotheses.

*Research Question 1.* Are there differences between the five self-reported leadership practices of Field Directors in the current study and the Kouzes-Posner norms for these leadership practices? Five single sample  $t$  tests were used to evaluate the following null hypotheses:

HO1<sub>1</sub>: There is no difference between the self-reported Model the Way leadership practice of Field Directors and the Kouzes-Posner norm for Model the Way.

HO1<sub>2</sub>: There is no difference between the self-reported Inspire a Shared Vision leadership practice of Field Directors and the Kouzes-Posner norm for Inspire a Shared Vision.

HO1<sub>3</sub>: There is no difference between the self-reported Challenge the Process leadership practice of Field Directors and the Kouzes-Posner norm for Challenge the Process.

HO1<sub>4</sub>: There is no difference between the self-reported Enable Others to Act leadership practice of Field Directors and the Kouzes-Posner norm for Enable Others to Act.

HO1<sub>5</sub>: There is no difference between the self-reported Encourage the Heart leadership practice of Field Directors and the Kouzes-Posner norm for Encourage the Heart.

*Research Question 2.* Are there differences between Field Directors' self-reported leadership practices and Medical Liaisons' perceptions of their Field Directors' leadership practices? Five paired  $t$  tests were used to evaluate the following null hypotheses:

HO2<sub>1</sub>: There is no difference between the Field Directors' self-reported Model the Way leadership practice and their Medical Liaisons' perceptions of Field Directors' Model the Way leadership practice.

HO2<sub>2</sub>: There is no difference between the Field Directors' self-reported Inspire a Shared Vision leadership practice and their Medical Liaisons' perceptions of their Field Directors' Inspire a Shared Vision leadership practice.

HO2<sub>3</sub>: There is no difference between the Field Directors' self-reported Challenge the Process leadership practice and their Medical Liaisons' perceptions of their Field Directors' Challenge the Process leadership practice.

HO2<sub>4</sub>: There is no difference between the Field Directors' self-reported Enable Others to Act leadership practice and their Medical Liaisons' perceptions of their Field Directors' Enable Others to Act leadership practice.

HO2<sub>5</sub>: There is no difference between the Field Directors' self-reported Encourage the Heart leadership practice and their Medical Liaisons' perceptions of their Field Directors' Encourage the Heart leadership practice.

*Research Question 3.* Are there differences in Medical Liaisons' perceptions of their Field Directors' leadership practices based on gender and age of the Medical Liaison? Five two-way ANOVA models were used to evaluate this research question. The variable Age was measured in three categories (40 years old and

younger, 41 to 50, and 51 and younger). Each two-way ANOVA model evaluated three null hypotheses for a total of 15 null hypotheses.

#### ANOVA for Model the Way

HO3<sub>1</sub>: There is no difference between male and female Medical Liaisons' perceptions of their Field Directors' Model the Way leadership practice.

HO3<sub>2</sub>: There are no differences among Medical Liaisons' perceptions of their Field Directors' Model the Way leadership practice based on age of the Medical Liaison.

HO3<sub>3</sub>: There is no significant difference of the gender by age interaction for Medical Liaisons' perceptions of their Field Directors' Model the Way leadership practice.

#### ANOVA for Inspire a Shared Vision

HO3<sub>4</sub>: There is no difference between male and female Medical Liaisons' perceptions of their Field Directors' Inspire a Shared Vision leadership practice.

HO3<sub>5</sub>: There are no differences among Medical Liaisons' perceptions of their Field Directors' Inspire a Shared Vision leadership practice based on age of the Medical Liaison.

HO3<sub>6</sub>: There is no significant difference of the gender by age interaction for Medical Liaisons' perceptions of their Field Directors' Inspire a Shared Vision leadership practice.

#### ANOVA for Challenge the Process

HO3<sub>7</sub>: There is no difference between male and female Medical Liaisons' perceptions of their Field Directors' Challenge the Process leadership practice.

HO3<sub>8</sub>: There are no differences among Medical Liaisons' perceptions of their Field Directors' Challenge the Process leadership practice based on age of the Medical Liaison.

HO3<sub>9</sub>: There is no significant difference of the gender by age interaction for Medical Liaisons' perceptions of their Field Directors' Challenge the Process leadership practice.

#### ANOVA Enable Others to Act

HO3<sub>10</sub>: There is no difference between male and female Medical Liaisons' perceptions of their Field Directors' Enable Others to Act leadership practice.

HO3<sub>11</sub>: There are no differences among Medical Liaisons' perceptions of their Field Directors' Enable Others to Act leadership practice based on age of the Medical Liaison.

HO3<sub>12</sub>: There is no significant difference of the gender by age interaction for Medical Liaisons' perceptions of their Field Directors' Enable Others to Act leadership practice.

ANOVA Encourage the Heart

HO3<sub>13</sub>: There is no difference between male and female Medical Liaisons' perceptions of their Field Directors' Encourage the Heart leadership practice.

HO3<sub>14</sub>: There are no differences among Medical Liaisons' perceptions of their Field Directors' Encourage the Heart leadership practice based on age of the Medical Liaison.

HO3<sub>15</sub>: There is no significant difference of the gender by age interaction for Medical Liaisons' perceptions of their Field Directors' Encourage the Heart leadership practice.

*Research Question 4.* Are there differences in Medical Liaisons' perceptions of their Medical Affairs Field Directors' leadership practices based on the gender of the Field Director? A *t* test for independent samples was used to evaluate the following null hypotheses:

- Ho4<sub>1</sub> There is no difference in Medical Liaisons' perceptions of their Field Directors' Model the Way leadership practice between liaisons who report to female Field directors and liaisons who report to male Field Directors.
- Ho4<sub>2</sub> There is no difference in Medical Liaisons' perceptions of their Field Directors' Inspire a Shared Vision leadership practice between liaisons who report to female Field directors and liaisons who report to male Field Directors.
- Ho4<sub>3</sub> There is no difference in Medical Liaisons' perceptions of their Field Directors' Challenge the Process leadership practice between liaisons who report to female Field directors and liaisons who report to male Field Directors.
- Ho4<sub>4</sub> There is no difference in Medical Liaisons' perceptions of their Field Directors' Enable Others to Act leadership practice between liaisons who report to female Field directors and liaisons who report to male Field Directors.
- Ho4<sub>5</sub> There is no difference in Medical Liaisons' perceptions of their Field Directors' Encourage the Heart leadership practice between liaisons who report to female Field directors and liaisons who report to male Field Directors.

#### Significance of the Study

As highlighted in the literature review, the practices of leaders had a significant impact on the success of organizations. This study was important because leadership

practices of Field Directors at a pharmaceutical company were examined. Based on the results of this study, opportunities to improve leadership practices can be identified and specific, relevant training can be developed and implemented. This study represents one way that the leadership practices of Field Directors can be evaluated and improved.

### Research Design

The study was quantitative in nature and used a comparative design. The questionnaire used for this research included two demographic items (age and gender) and thirty questions from Kouzes and Posner's Leadership Practices Inventory (LPI), either the observer or the self-survey. In addition, there was a question related to Field Directors' initials that was used to match Medical Liaisons to their Field Directors. Both Medical Liaisons and Field Directors were given assurances that the data for this variable assigned numeric codes, and that confidentiality and their anonymity were guaranteed.

### Population and Sample

The population consisted of fifteen Field Directors at a pharmaceutical company and their direct reports, one-hundred and thirty Medical Liaisons. The Field Directors and their Medical Liaison teams are based in different territories throughout the United States. The sample was a convenience sample that consisted of all 15 field directors and 103 medical liaisons. The overall rate of return was 81%. The rate of return for field directors was 100% while the rate of return for medical liaisons was 79%.



### Consent for Research and Confidentiality

Permission for research was obtained from the pharmaceutical company on August 24, 2012. This included approval from employment law and a letter provided by Human Resources (Appendix A). The Director of Research at Tennessee Temple University approved the research proposal on April 29, 2013. The purpose and methods used to conduct the research were shared with each of the Field Directors. All of the Field Directors gave their verbal consent to participate in the survey and expressed interest in the results. An electronic message was sent to each participant on May 9, 2013, including both Field Directors and Medical Liaisons. The electronic message explained the purpose of the research study, provided the website link to access the survey, the length of time to expect to complete the survey, ensured confidentiality of the survey and explained that the answers would be anonymous (Appendix B).

### Survey Instruments

Along with their model for leadership, Kouzes and Posner developed the Leadership Practices Inventory (LPI) which measures the behaviors described in their model. It is a questionnaire that contains thirty behavioral statements, with six each to evaluate the five Practices of Exemplary Leadership. The LPI consists of both a self-evaluation and an evaluation by others, frequently referred to as a 360 measure, or observer survey.

Each of the 30 items was measured on a 10-point scale where 1 = Almost never; 2 = Rarely; 3 = Seldom; 4 = Once in a while; 5 = Occasionally; 6 = Sometimes; 7 = Fairly often; 8 = Usually; 9 = Very frequently; and 10 = Almost always. Each leadership

practice has a potential range of 6 to 60. Using the LPI – Self form, the items included in each leadership practice were:

#### Model the Way

1	I set a personal example of what I expect of others.
6.	I spend time and energy making certain that the people I work with adhere to the principles and standards we have agreed on.
11.	I follow through on the promises and commitments that I make.
16.	I ask for feedback on how my actions affect other people's performance.
21.	I build consensus around a common set of values for running our organization.
26.	I am clear about my philosophy of leadership.

#### Inspire a Shared Vision

2.	I talk about future trends that will influence how our work gets done.
7.	I describe a compelling image of what our future could be like.
12.	I appeal to others to share an exciting dream of the future.
17.	I show others how their long-term interests can be realized by enlisting a common vision.
22.	I paint the "big picture" of what we aspire to accomplish.
27.	I speak with genuine conviction about the higher meaning and purpose of our work.

### Challenge the Process

3.	I seek out challenging opportunities that test my own skills and abilities.
8.	I challenge people to try out new and innovative ways to do their work.
13.	I search outside the formal boundaries of my organization for innovative ways to improve what we do.
18.	I ask “What can we learn?” when things don’t go as expected.
23.	I make certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on.
28.	I experiment and take risks, even when there is a chance of failure.

### Enable Others to Act

4.	I develop cooperative relationships among the people I work with.
9.	I actively listen to diverse points of view.
14.	I treat others with dignity and respect.
19.	I support the decisions that people make on their own.
24.	I give people a great deal of freedom and choice in deciding how to do their work.
29.	I ensure that people grow in their jobs by learning new skills and developing themselves.

## Encourage the Heart

5.	I praise people for a job well done.
10.	I make it a point to let people know about my confidence in their abilities.
15.	I make sure that people are creatively rewarded for their contributions to the success of our projects.
20.	I publicly recognize people who exemplify commitment to shared values.
25.	I find ways to celebrate accomplishments.
30.	I give the members of the team lots of appreciation and support for their contributions.

The Leadership Practices Inventory has been utilized by over three million people to assess leadership practices. Internal reliability, as measured by Cronbach's Alpha, has results above .75 with all scales (Kouzes & Posner, 2000). Validity has been confirmed in multiple studies by both empirical methods and face validity (Kouzes & Posner, 2002). Good predictive validity in terms of leaders' effectiveness and behavior has been suggested by discriminant analysis of the LPI (Posner & Kouzes, 1988). The LPI-other has shown to be a reliable and valid assessment of respondents' behavior for research purposes (Posner & Kouzes, 1988). The LPI Cronbach's reliability coefficients are shown in Table 1 (2010).

Table 1.

LPI Cronbach's Reliability Coefficients for the Kouzes-Posner Study, September 2010

Leadership Practice	Kouzes-Posner Self		Kouzes-Posner Observer	
	<i>N</i>	$\alpha$	<i>N</i>	$\alpha$
Model the Way	282,867	.84	869,849	.85
Inspire Shared Vision	282,867	.91	869,849	.92
Challenge the Process	282,867	.86	869,849	.87
Enable Others to Act	282,867	.86	869,849	.87
Encourage the Heart	282,867	.91	869,849	.92

<http://media.wiley.com/assets/2260/07/LPIDataAnalysisSept2010.pdf>

#### Data Collection

A website link to complete the survey was provided in the electronic message sent on May 9, 2013 to the participants. The Field Directors received a link to the Leadership Practices Inventory – Self, and the Medical Liaisons received a link to the Leadership Practices Survey – Observer. Permission to utilize the Leadership Practices Inventory in this dissertation was received from the permissions editor on April 10, 2013 (Appendix C).

The tool utilized to collect the survey data was Survey Monkey. Permission to transfer the Leadership Practices Inventory (LPI) questions to an electronic version was granted by the publisher (Appendix D). One of two surveys was taken by study

participants. The survey taken by the Field Directors consisted of the thirty questions from the Leadership Practices Inventory – Self, fourth edition (Appendix E). The Medical Liaisons were given a survey which included the thirty questions from the Leadership Practices Inventory – Observer, fourth edition (Appendix F).

The only changes made to the survey questions were the addition of the descriptor “Field Director” to define the leader for the Leadership Practices Inventory – Observer. Both surveys included two demographic questions which were, “What is your gender?” and “In what year were you born? (enter 4-digit birth year, for example, 1976)”. The initials of the Field Director were also requested in order to match the Field Directors with their Medical Liaisons for statistical comparison.

The survey had an introduction which explained the purpose of the study, insured the anonymity of the study, and stated that participation in the survey would serve as informed consent to participate in the research study (Appendix G). Instructions were provided for completion of the survey which included the scale used to answer each of the questions (Appendix H). The survey was sent to fifteen Field Directors and one-hundred and thirty Medical Liaisons. The survey was available from May 9, 2013 to May 24, 2013.

At the conclusion of the survey, the data was exported from the Survey Monkey to an Excel spreadsheet by an independent statistician in preparation for statistical analysis. The statistician analyzed the data using the Statistical Package for the Social Sciences (SPSS) software. The results were delivered to the researcher for interpretation and inclusion in the study.

### Summary of Methodology

This chapter provided a description and explanation of the research design used in this study. The purpose was discussed and the population and sample were described. The Leadership Practices Inventory was identified and defined, and the procedure for conducting the research was explained.

## CHAPTER IV

### Results

The purpose of this study was to compare Field Directors' self-reported leadership practices to the published Kouzes and Posner norms. In addition, comparisons were made between the Medical Liaisons' perceptions of the leadership practices of their Field Directors to the Field Directors' self-reported leadership practices. This research also examined the effect of age and gender of the Medical Liaisons on their perceptions. Last, the effect of the gender of the Field Director on the Medical Liaisons' perceptions of their Field Directors' leadership practices was analyzed. The results of the data are presented in this chapter, including the reliability of the five leadership practices. The data analysis of the research questions are presented using single sample *t* tests and paired tests followed by the two-way ANOVAs for the effect of age and gender of the Medical Liaisons on their perceptions. Last, *t* tests for independent samples are presented to evaluate the effect of the gender of the Field Director on the perceptions of Medical Liaisons. This chapter concludes with a summary of the major findings of the research.

### Description of the Sample

A total of 15 Field Directors completed the survey. Surveys were sent to 15 Field Directors which indicated a 100% response rate. The demographic portions of the survey included two questions, age and gender of the Field Director. Sixty percent of the Field Directors were male and forty percent were female. The age of the Field Directors ranged from 40 to 53 years of age. The average age of the Field Directors was 47.87 with a standard deviation of 4.45.



One-hundred and thirty surveys were sent to the Medical Liaisons to complete, and 103 were returned; indicating a response rate of 79%. Two demographic questions were included, age and gender of the Medical Liaison. Fifty-six percent of the Medical Liaisons were female and forty-four percent were male. The ages of the Medical Liaisons ranged from 27 – 70. The mean age for Medical Liaisons was 46.07 with a standard deviation of 9.16.

#### Leadership Practices Inventory

The survey questions evaluating the self-reported leadership practices of Field Directors were from the Leadership Practices Inventory (LPI) –Self, fourth edition. The survey questions evaluating the perception of the Field Director’s leadership practices by the Medical Liaisons were from the Leadership Practices Inventory (LPI) – Observer, fourth edition.

#### LPI Reliability

The survey instrument was examined for internal reliability and compared to the reliability coefficients produced by the authors of the original test. The Cronbach’s alpha reliability coefficients for the five leadership practices of the LPI as reported by Self, the Field Directors, and Medical Liaisons in the current study are shown in Table 2. The reliability coefficients in the current study were reliable with coefficients above .70 except for Model the Way for Field Directors which was .68. However, because the Leadership Practices Inventory is well-researched and well established in the literature, rather than omit an item to increase the reliability to an acceptable .70, the Model the Way scale with all six items was left intact.

Table 2

LPI Cronbach's Reliability Coefficients for Field Directors and Medical Liaisons in the Current Study

Leadership Practice	Field Directors (Self)		Medical Liaisons (Observers)	
	<i>N</i>	$\alpha$	<i>N</i>	$\alpha$
Model the Way	15	.68	100	.80
Inspire Shared Vision	15	.81	101	.91
Challenge the Process	15	.86	97	.86
Enable Others to Act	15	.71	99	.88
Encourage the Heart	14	.83	99	.90

#### LPI Means and Standard Deviations

The means and standard deviations for the five leadership practices by Field Directors and Medical Liaisons are shown in Table 3. As shown in the table, Medical Liaisons rated their Field Directors higher on all five leadership practices than Field Directors rated themselves. In addition, both Medical Liaisons and Field Directors had the highest mean for Enable Others to Act, followed by Model the Way with the second highest mean and Encourage the Heart with the third highest mean. For both groups, there was very little difference in the means between fourth and fifth place rankings for Inspire a Shared Vision (ranked fourth among Field Directors and fifth among Medical

Liaisons) and Challenge the Process (ranked fifth among Field Directors and fourth among Medical Liaisons).

Table 3

Means and Standard Deviations for Leadership Practices for Field Directors and Medical Liaisons

Leadership Practice	Field Directors			Medical Liaisons		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>
Model the Way	15	50.07	4.73	100	50.94	7.42
Inspire Shared Vision	15	43.73	7.67	101	45.49	10.92
Challenge the Process	15	43.53	7.52	97	45.62	9.65
Enable Others to Act	15	52.13	4.21	99	53.84	7.11
Encourage the Heart	14	48.00	5.75	99	50.80	9.53

### Research Questions and Hypotheses

To investigate the first research question and evaluate the hypotheses, single sample *t* tests were calculated to determine if the differences between the Field Director's self-reported leadership practices and the Kouzes-Posner norms were statistically significant. The null hypothesis was rejected if the *p* value was equal to or less than 0.05 and the null hypothesis was retained if the *p* value was greater than 0.05.

*Research Question 1.* Are there differences between the five self-reported leadership practices of Field Directors in the current study and the Kouzes-Posner norms for these leadership practices? Five single sample  $t$  tests were used to evaluate the null hypotheses.

HO1<sub>1</sub>: There is no difference between the self-reported Model the Way leadership practice of Field Directors and the Kouzes-Posner norm for Model the Way.

A single sample  $t$  test was conducted to evaluate whether or not there was a significant difference between Medical Affairs Field Directors' mean for the Model the Way leadership practice and the Kouzes-Posner norm for this practice. The  $t$  test was significant,  $t(14) = 2.76, p = .015$ . The null hypothesis was rejected. The Field Directors' mean for Model the Way ( $M = 50.07, SD = 4.73$ ) was almost 3.5 points higher than the Kouzes-Posner norm for Model the Way ( $M = 46.70$ ).

HO1<sub>2</sub>: There is no difference between the self-reported Inspire a Shared Vision leadership practice of Field Directors and the Kouzes-Posner norm for Inspire a Shared Vision.

The single sample  $t$  test used to evaluate whether or not the Field Directors' mean for the Inspire a Shared Vision leadership practice was different from the Kouzes-Posner norm was not significant,  $t(14) = .07, p = .943$ . Therefore, the null hypothesis was

retained. The Inspire a Shared Vision mean for Field Directors ( $M = 43.73$ ,  $SD = 7.67$ ) was almost identical to the Kouzes-Posner norm ( $M = 43.59$ ).

HO1<sub>3</sub>: There is no difference between the self-reported Challenge the Process leadership practice of Field Directors and the Kouzes-Posner norm for Challenge the Process.

The single sample  $t$  test used to evaluate the mean difference between Field Directors' mean for the Challenge the Process leadership practice and the Kouzes-Posner norm was not significant,  $t(14) = -.60$ ,  $p = .561$ . Therefore, the null hypothesis was retained. The Challenge the Process mean for Field Directors ( $M = 43.53$ ,  $SD = 7.52$ ) was similar to the Kouzes-Posner norm ( $M = 44.69$ ).

HO1<sub>4</sub>: There is no difference between the self-reported Enable Others to Act leadership practice of Field Directors and the Kouzes-Posner norm for Enable Others to Act.

The single sample  $t$  test showed there was a significant difference between the Field Directors' mean for Enable Others to Act and the Kouzes-Posner norm for this leadership practice,  $t(14) = 2.57$ ,  $p = .022$ . Therefore, the null hypothesis was rejected. The Field Directors' Enable Others to Act mean, ( $M = 52.13$ ,  $SD = 4.21$ ) was 2.8 points higher than the Kouzes-Posner norm ( $M = 49.34$ ).

HO1<sub>5</sub>: There is no difference between the self-reported Encourage the Heart leadership practice of Field Directors and the Kouzes-Posner norm for Encourage the Heart.

The single sample  $t$  test used to evaluate whether or not the Field Directors' mean for the Encourage the Heart leadership practice was different from the Kouzes-Posner norm was not significant,  $t(13) = 1.44, p = .174$ . Therefore, the null hypothesis was retained. The Field Directors' Encourage the Heart mean, ( $M = 48.00, SD = 5.75$ ) was 2.2 points higher than the Kouzes-Posner norm ( $M = 45.79$ ).

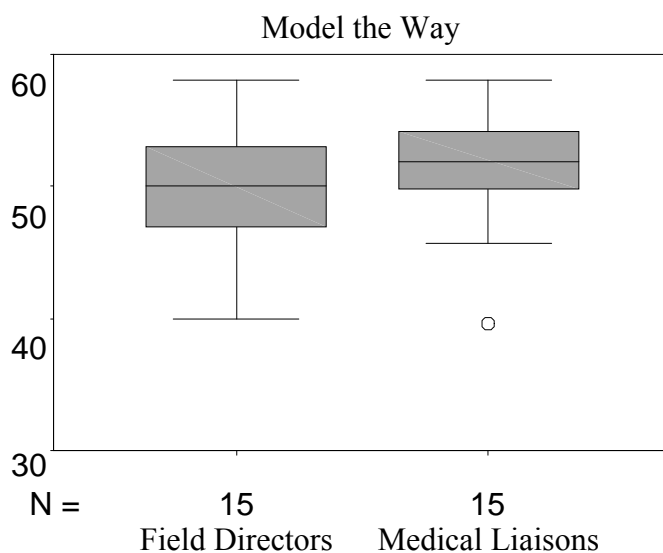
To investigate the second research question and evaluate the hypotheses, paired  $t$  tests were conducted to determine if the differences between the Field Director's self-reported leadership practices and the Medical Liaisons' perceptions of their Field Director's leadership practices were statistically significant. The null hypothesis was rejected if the  $p$  value was equal to or less than 0.05 and the null hypothesis was retained if the  $p$  value was greater than 0.05.

*Research Question 2.* Are there differences between Field Directors' self-reported leadership practices and Medical Liaisons' perceptions of their Field Directors' leadership practices? Five paired  $t$  tests were used to evaluate the null hypotheses.

HO<sub>21</sub>: There is no difference between the Field Directors' self-reported Model the Way leadership practice and their Medical Liaisons' perceptions of Field Directors' Model the Way leadership practice.

A paired  $t$  test was conducted to evaluate the mean difference in Model the Way scores between Field Directors and their Medical Liaisons. The test showed there was no significant difference,  $t(14) = -.70, p = .494$ . The Model the Way mean for Medical

Liaisons ( $M = 51.23$ ,  $SD = 4.43$ ) was only 1.2 points higher than the mean for Field Directors ( $M = 50.07$ ,  $SD = 4.73$ ). Therefore, the null hypothesis was retained. The effect size, Cohen's  $d$ , was .18 which is a small effect size. Figure 1 shows the boxplots for Model the Way scores for Field Directors and Medical Liaisons.



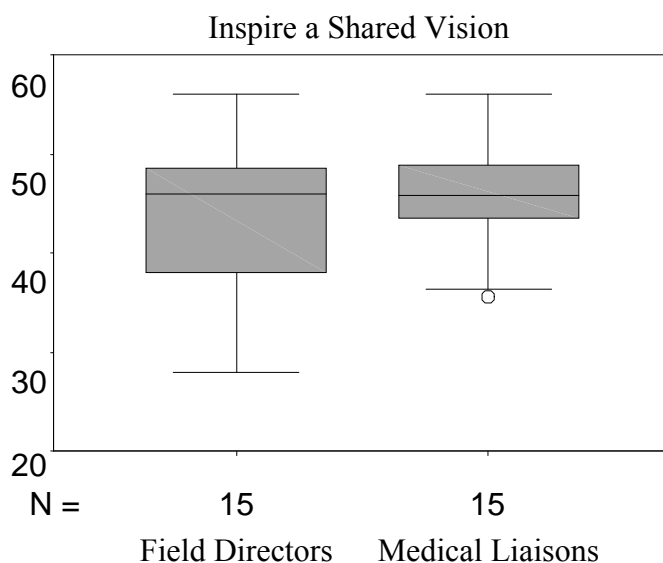
Notes: o = an observation between 1.5 times to 3.0 times the interquartile range

Figure 1. Boxplots for Model the Way for Field Directors and Medical Liaisons

HO<sub>2</sub>: There is no difference between the Field Directors' self-reported Inspire a Shared Vision leadership practice and their Medical Liaisons' perceptions of their Field Directors' Inspire a Shared Vision leadership practice.

A paired  $t$  test was conducted to evaluate the mean difference in Inspire a Shared Vision scores between Field Directors and their Medical Liaisons. The test showed there was no significant difference,  $t(14) = -1.047$ ,  $p = .313$ . The Inspire a Shared Vision mean for Medical Liaisons ( $M = 46.06$ ,  $SD = 5.77$ ) was only 2.3 points higher than the

mean for Field Directors ( $M = 43.73$ ,  $SD = 7.67$ ). Therefore, the null hypothesis was retained. The effect size, Cohen's  $d$ , was .27 which is a small effect size. Figure 2 shows the boxplots for Inspire a Shared Vision scores for Field Directors and Medical Liaisons.



Notes: o = an observation between 1.5 times to 3.0 times the interquartile range

Figure 2. Boxplots for Inspire a Shared Vision for Field Directors and Medical Liaisons

HO<sub>3</sub>: There is no difference between the Field Directors' self-reported Challenge the Process leadership practice and their Medical Liaisons' perceptions of their Field Directors' Challenge the Process leadership practice.

A paired  $t$  test was conducted to evaluate the mean difference in Challenge the Process scores between Field Directors and their Medical Liaisons. The test showed there was no significant difference,  $t(14) = -1.09$ ,  $p = .296$ . The Challenge the Process mean for Medical Liaisons ( $M = 46.09$ ,  $SD = 5.08$ ) was only 2.6 points higher than the mean for Field Directors ( $M = 43.53$ ,  $SD = 7.52$ ). Therefore, the null hypothesis was



retained. The effect size, Cohen's  $d$ , was .28 which is a small effect size. Figure 3 shows the boxplots for Challenge the Process scores for Field Directors and Medical Liaisons.

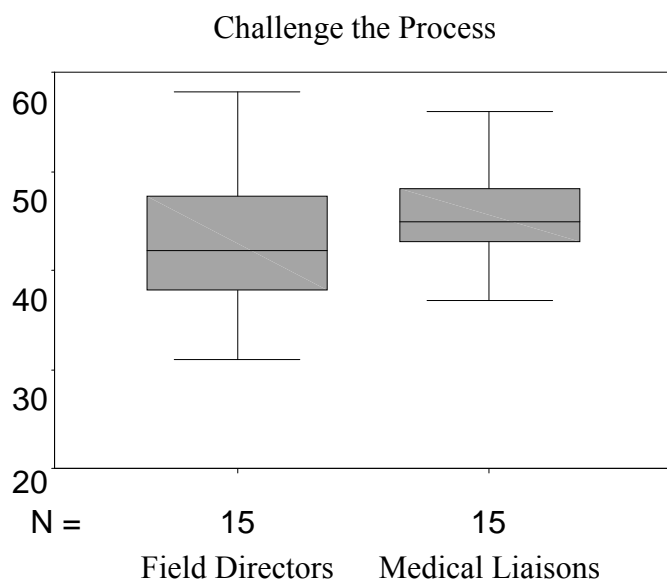
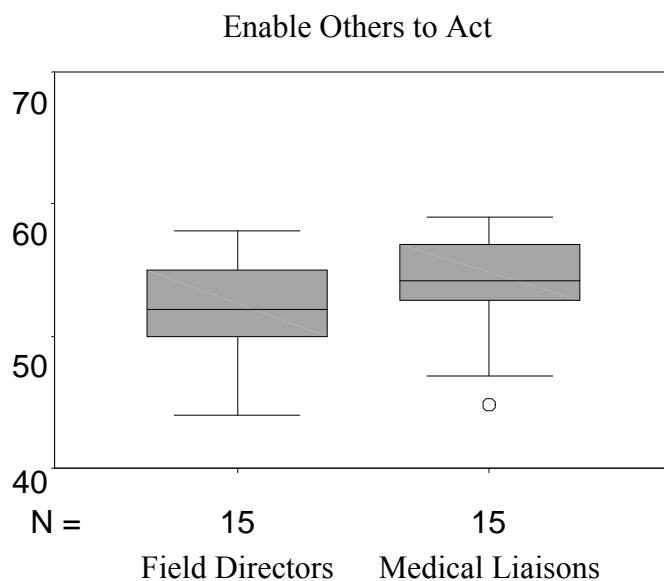


Figure 3. Boxplots for Challenge the Process for Field Directors and Medical Liaisons

HO<sub>24</sub>: There is no difference between the Field Directors' self-reported Enable Others to Act leadership practice and their Medical Liaisons' perceptions of their Field Directors' Enable Others to Act leadership practice.

A paired  $t$  test was conducted to evaluate the mean difference in Enable Others to Act scores between Field Directors and their Medical Liaisons. The test showed there was no significant difference,  $t(14) = -1.31, p = .211$ . The Enable Others to Act mean for Medical Liaisons ( $M = 53.95, SD = 3.89$ ) was only 1.8 points higher than the mean for Field Directors ( $M = 52.13, SD = 4.21$ ). Therefore, the null hypothesis was retained. The effect size, Cohen's  $d$ , was .34 which is a small effect size. Figure 4 shows the boxplots for Enable Others to Act scores for Field Directors and Medical Liaisons.

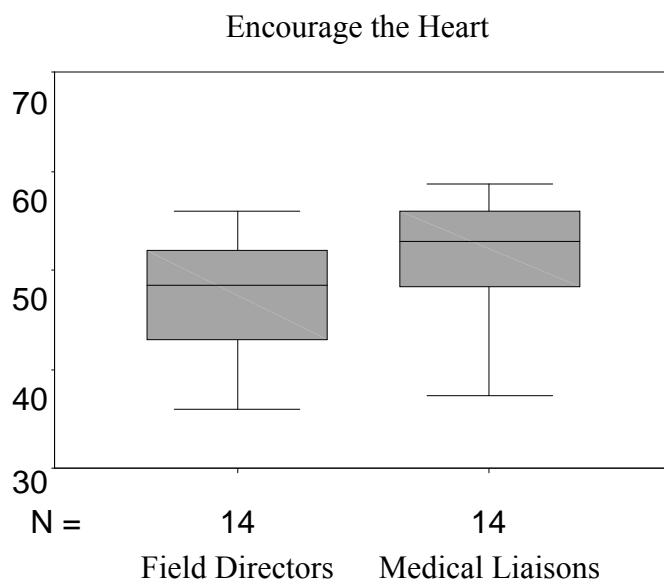


Notes: o = an observation between 1.5 times to 3.0 times the interquartile range

*Figure 4.* Boxplots for Enable Others to Act for Field Directors and Medical Liaisons

HO<sub>2</sub>: There is no difference between the Field Directors' self-reported Encourage the Heart leadership practice and their Medical Liaisons' perceptions of their Field Directors' Encourage the Heart leadership practice.

A paired  $t$  test was conducted to evaluate the mean difference in Encourage the Heart scores between Field Directors and their Medical Liaisons. The test showed there was no significant difference,  $t(13) = -1.17, p = .263$ . The Encourage the Heart mean for Medical Liaisons ( $M = 50.54, SD = 6.91$ ) was 2.5 points higher than the mean for Field Directors ( $M = 48.00, SD = 5.75$ ). Therefore, the null hypothesis was retained. The effect size, Cohen's  $d$ , was .31 which is a small effect size. Figure 5 shows the boxplots for Encourage the Heart scores for Field Directors and Medical Liaisons.



*Figure 5.* Boxplots for Encourage the Heart for Field Directors and Medical Liaisons

To investigate the third research question and evaluate the hypotheses, five two-way ANOVA models were used. The two-way ANOVA models evaluated whether or not the Medical Liaisons' gender and age showed differences in their perception of each of the five leadership practices of their Field Directors. The two main effects in each ANOVA model were ML gender and ML age. Medical Liaison Age was measured in three categories: (1) 40 years old and younger, (2) 41 to 50 years old and (3) 51 years old and older. In a two-way ANOVA model, if the interaction term is significant, a main effect cannot be evaluated in isolation of the other factor in the model. For that reason, the hypothesis for the interaction term is always evaluated first. If the interaction term is not significant, the main effects can be addressed separately.

*Research Question 3.* Are there differences in Medical Liaisons' perceptions of their Field Directors' leadership practices based on the Medical Liaisons' gender and age?

ANOVA for Model the Way

HO3<sub>1</sub>: There is no significant difference of gender by age interaction for Medical Liaisons' perceptions of their Field Directors' Model the Way leadership practice.

HO3<sub>2</sub>: There is no difference between male and female Medical Liaisons' perceptions of their Field Directors' Model the Way leadership practice.

HO3<sub>3</sub>: There are no differences among Medical Liaisons' perceptions of their Field Directors' Model the Way leadership practice based on age of the Medical Liaison.

The two-way gender by age interaction for Model the Way was not significant  $F(2, 93) = .28, p = .756$ . The null hypothesis is retained. Therefore, it was appropriate to proceed with an evaluation of each main effect separately.

The main effect of gender of the Medical Liaison was not significant,  $F(1, 93) = .19, p = .662$ . Therefore, the null hypothesis for gender was retained. The effect size of ML gender, as measured by  $\eta^2$ , was small ( $< .01$ ). That is, less than 1% of the variance in Model the Way scores was accounted for by gender of the ML. The Model the Way mean for females ( $M = 50.76, SD = 7.38$ ) was only a half point lower than the mean for males, ( $M = 51.27, SD = 7.59$ ).

The main effect of age of the ML was not significant,  $F(2, 93) = 1.07, p = .348$ . Therefore, the null hypothesis was retained. The effect size for age was small (.02). Therefore, only 2% of the variance in Medical Liaisons' perceptions of their Field Directors' Model the Way leadership practice was accounted for by age of the Medical Liaison. The largest difference in Model the Way means was between Medical Liaisons aged 40 and younger with the highest mean ( $M = 52.33, SD = 6.58$ ) and those aged 51 and older with the lowest mean ( $M = 49.69, SD = 5.81$ ), a difference of 2.6 points. The means for Medical Liaisons aged 41 to 50 years old fell between the youngest and oldest age groups, ( $M = 50.92, SD = 8.95$ ).

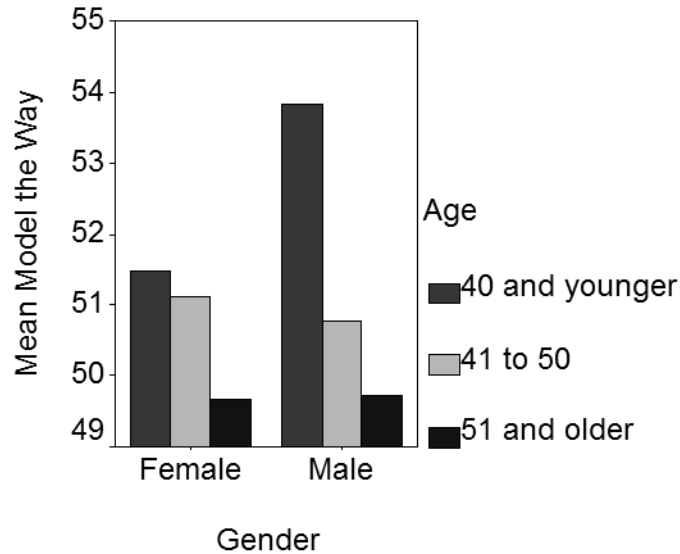
The means and standard deviations for Model the Way by gender and age of the Medical Liaison are shown in Table 4. A bar chart of Model the Way means by ML gender and ML age is shown in Figure 6.

Table 4

Means and Standard Deviations for Medical Liaisons' Perceptions of their Field

Directors' Model the Way Leadership Practice

ML Gender	ML Age	<i>n</i>	<i>M</i>	<i>SD</i>
Female	40 and younger	19	51.47	7.66
	2 41 to 50	18	51.11	9.39
	51 and older	18	49.67	4.54
	Female Total	55	50.76	7.38
Male	40 and younger	11	53.82	4.02
	41 to 50	22	50.77	8.78
	51 and older	11	49.73	7.71
	Male Total	44	51.27	7.59
Total	40 and younger	30	52.33	6.58
	41 to 50	40	50.92	8.95
	51 and older	29	49.69	5.81
	Grand Total	99	50.99	7.44



*Figure 6.* Bar Graph for Model the Way Means by ML Gender and ML Age.

#### ANOVA for Inspire a Shared Vision

HO3<sub>4</sub>: There is no significant difference of gender by age interaction for Medical Liaisons' perceptions of their Field Directors' Inspire a Shared Vision leadership practice.

HO3<sub>5</sub>: There is no difference between male and female Medical Liaisons' perceptions of their Field Directors' Inspire a Shared Vision leadership practice.

HO3<sub>6</sub>: There are no differences among Medical Liaisons' perceptions of their Field Directors' Inspire a Shared Vision leadership practice based on age of the Medical Liaison.

The two-way gender by age interaction for Inspire a Shared Vision was not significant  $F(2, 93) = .81, p = .450$ . The null hypothesis is retained. Therefore, it was appropriate to proceed with an evaluation of each main effect separately.

The main effect of gender of the Medical Liaison was not significant,  $F(1, 93) = 1.40, p = .245$ . Therefore, the null hypothesis for gender was retained. The effect size of the ML gender, as measured by  $\eta^2$ , was small (.02). That is, less than 2% of the variance in Inspire a Shared Vision scores was accounted for by gender of the Medical Liaison. The Inspire a Shared Vision mean for females ( $M = 44.67, SD = 11.34$ ) was only 2.3 points lower than the mean for males, ( $M = 47.05, SD = 10.23$ ).

The main effect of age of the Medical Liaison was not significant,  $F(2, 93) = 1.37, p = .258$ . Therefore, the null hypothesis was retained. The effect size for age of the Medical Liaison was small (.03). This means only 3% of the variance in Medical Liaisons' perceptions of their Field Directors' Inspire a Shared Vision leadership practice was accounted for by age of the Medical Liaison. The largest difference in Inspire a Shared Vision means was between Medical Liaisons aged 40 and younger with the highest mean ( $M = 47.70, SD = 10.44$ ) and those aged 51 and older with the lowest mean ( $M = 43.86, SD = 7.59$ ), a difference of 3.8 points. The means for Medical Liaisons aged 41 to 50 years old fell between the youngest and oldest age groups, ( $M = 45.60, SD = 12.99$ ).

The means and standard deviations for Inspire a Shared Vision by ML gender and ML age are shown in Table 5. A bar chart of Inspire a Shared Vision means by ML gender and ML age is shown in Figure 7.

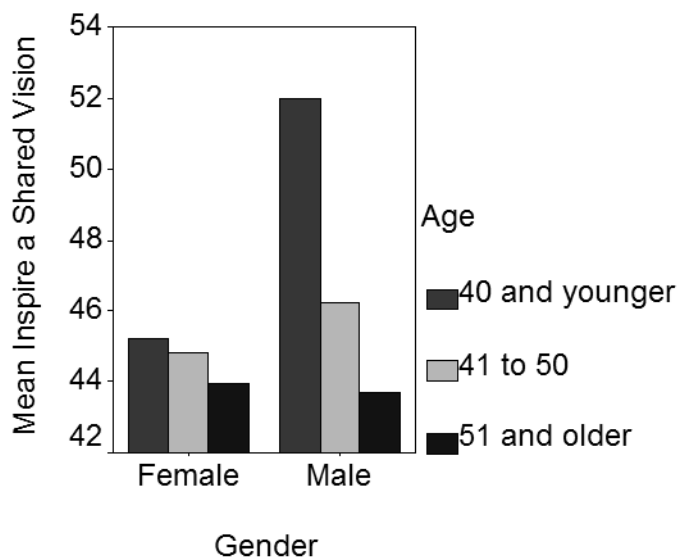


Table 5

Means and Standard Deviations of Medical Liaisons' Perceptions of their Field

Directors' Inspire a Shared Vision Leadership Practice

ML Gender	ML Age	<i>n</i>	<i>M</i>	<i>SD</i>
Female	40 and younger	19	45.21	12.15
	41 to 50	18	44.83	13.89
	51 and older	18	43.94	7.63
	Female Total	55	44.67	11.34
Male	40 and younger	11	52.00	4.27
	41 to 50	22	46.23	12.51
	51 and older	11	43.73	7.89
	Male Total	44	47.05	10.23
Total	40 and younger	30	47.70	10.44
	41 to 50	40	45.60	12.99
	51 and older	29	43.86	7.59
	Grand Total	99	45.73	10.87



*Figure 7* Bar Graph of Medical Liaisons' Means for Inspire a Shared Vision by ML Gender and ML Age

#### ANOVA for Challenge the Process

HO3<sub>7</sub>: There is no significant difference of gender by age interaction for Medical Liaisons' perceptions of their Field Directors' Challenge the Process leadership practice.

HO3<sub>8</sub>: There is no difference between male and female Medical Liaisons' perceptions of their Field Directors' Challenge the Process leadership practice.

HO3<sub>9</sub>: There are no differences among Medical Liaisons' perceptions of their Field Directors' Challenge the Process leadership practice based on age of the Medical Liaison.

The two-way gender by age interaction for Challenge the Process was not significant  $F(2, 90) = .80, p = .454$ . The null hypothesis is retained. Therefore, it was appropriate to proceed with an evaluation of each main effect separately.

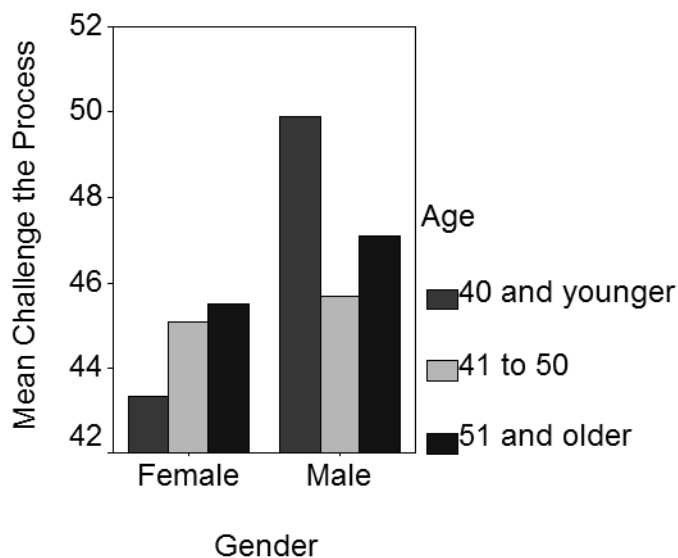
The main effect of gender of the Medical Liaison was not significant,  $F(1, 90) = 2.10, p = .156$ . Therefore, the null hypothesis for gender was retained. The effect size of ML gender, as measured by  $\eta^2$ , was small (.02). This indicates that less than 2% of the variance in Challenge the Process scores were accounted for by gender of the Medical Liaison. The Challenge the Process mean for females ( $M = 44.62, SD = 10.26$ ) was only 2.5 points lower than the mean for males, ( $M = 47.09, SD = 8.71$ ).

The main effect of age of the Medical Liaison was not significant,  $F(2, 90) = 1.42, p = .868$ . Therefore, the null hypothesis was retained. The effect size for ML age was small ( $< .01$ ) which means less than 1% of the variance in Medical Liaisons' perceptions of their Field Directors' Challenge the Process leadership practice was accounted for by age of the Medical Liaison. There were only small differences in Challenge the Process across all age groups, the largest difference in was between Medical Liaisons aged 41 to 50 with the lowest mean ( $M = 45.43, SD = 10.86$ ) and those aged 51 and older with the highest mean ( $M = 46.07, SD = 6.72$ ), which is a difference of less than one point.

The means and standard deviations for Challenge the Process by ML gender and ML age are shown in Table 6. A bar chart of Challenge the Process means by ML gender and ML age is shown in Figure 8.

Table 6  
Means and Standard Deviations for Medical Liaisons' Perceptions of their Field  
Directors' Challenge the Process Leadership Practice

ML Gender	ML Age	<i>n</i>	<i>M</i>	<i>SD</i>
Female	40 and younger	18	43.33	12.06
	41 to 50	15	45.07	11.54
	51 and older	19	45.47	7.39
	Female Total	52	44.62	10.26
Male	40 and younger	11	49.91	6.66
	41 to 50	22	45.68	10.64
	51 and older	11	47.09	5.56
	Male Total	44	47.09	8.71
Total	40 and younger	29	45.83	10.71
	41 to 50	37	45.43	10.86
	51 and older	30	46.07	6.72
	Total	96	45.75	9.61



*Figure 8.* Bar Graph of Medical Liaisons' Means for Challenge the Process by ML Gender and ML Age

ANOVA Enable Others to Act

HO3<sub>10</sub>: There is no difference significant gender by age interaction for Medical Liaisons' perceptions of their Field Directors' Enable Others to Act leadership practice.

HO3<sub>11</sub>: There is no difference between male and female Medical Liaisons' perceptions of their Field Directors' Enable Others to Act leadership practice.

HO3<sub>12</sub>: There are no differences among Medical Liaisons' perceptions of their Field Directors' Enable Others to Act leadership practice based on age of the Medical Liaison.

The two-way gender by age interaction for Enable Others to Act was not significant  $F(2, 92) = .05, p = .952$ . The null hypothesis was retained. Therefore, it was appropriate to proceed with an evaluation of each main effect separately.

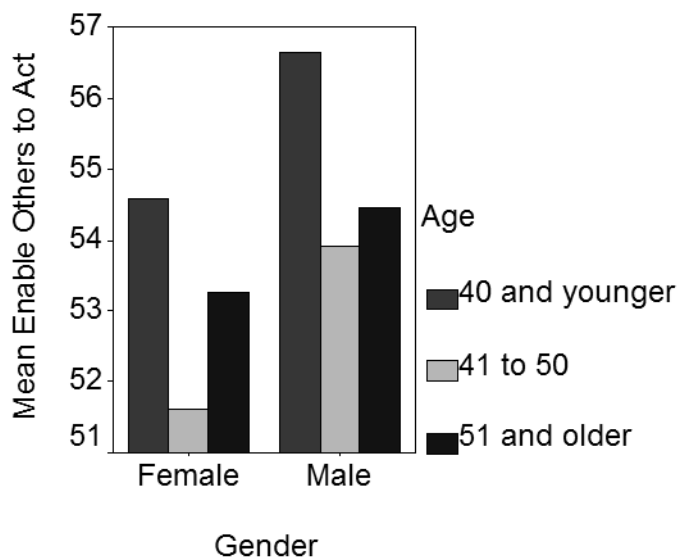
The main effect of gender of the Medical Liaison was not significant,  $F(1, 92) = 1.51, p = .222$ . Therefore, the null hypothesis for ML gender was retained. The effect size of ML gender, as measured by  $\eta^2$ , was small (.02). That is, 2% of the variance in Enable Others to Act scores was accounted for by ML gender. The Enable Others to Act mean for females ( $M = 53.24, SD = 7.78$ ) was only 1.5 points lower than the mean for males, ( $M = 54.73, SD = 6.18$ ).

The main effect of age of the Medical Liaison was not significant,  $F(2, 92) = 1.25, p = .290$ . The null hypothesis was retained. The effect size for ML age was small (.03). In other words, only 3% of the variance in Medical Liaisons' perceptions of their Field Directors' Enable Others to Act leadership practice was accounted for by ML age. The largest difference in Enable Others to Act means was between Medical Liaisons aged 40 and younger with the highest mean ( $M = 55.33, SD = 5.42$ ) and those aged 41 to 50 with the lowest mean ( $M = 52.95, SD = 8.73$ ), a difference of 2.4 points. The means for Medical Liaisons 51 and older fell between the other two age groups, ( $M = 53.70, SD = 6.27$ ).

The means and standard deviations for Enable Others to Act by ML gender and ML age are shown in Table 7. A bar chart of Enable Others to Act means by ML gender and ML age is shown in Figure 9.

Table 7  
Means and Standard Deviations for Medical Liaisons' Perceptions of their Field  
Directors' Enable Others to Act Leadership Practice

ML Gender	ML Age	<i>n</i>	<i>M</i>	<i>SD</i>
Female	40 and younger	19	54.58	6.18
	41 to 50	16	51.63	11.38
	51 and older	19	53.26	5.29
	Female Total	54	53.24	7.78
Male	40 and younger	11	56.64	3.67
	41 to 50	22	53.91	6.28
	51 and older	11	54.45	7.90
	Male Total	44	54.73	6.18
Total	40 and younger	30	55.33	5.42
	41 to 50	38	52.95	8.73
	51 and older	30	53.70	6.27
	Total	98	53.91	7.11



*Figure 9.* Bar Graph of Medical Liaisons' Means for Enable Others to Act by ML Gender and ML Age

ANOVA Encourage the Heart

HO3<sub>13</sub>: There is no difference significant gender by age interaction for Medical Liaisons' perceptions of their Field Directors' Encourage the Heart leadership practice.

HO3<sub>14</sub>: There is no difference between male and female Medical Liaisons' perceptions of their Field Directors' Encourage the Heart leadership practice

HO3<sub>15</sub>: There are no differences among Medical Liaisons' perceptions of their Field Directors' Encourage the Heart leadership practice based on age.



The two-way gender by age interaction for Encourage the Heart was not significant  $F(2, 92) = 2.28, p = .108$ . The null hypothesis was retained. Therefore, it was appropriate to proceed with an evaluation of each main effect separately.

The main effect of gender of the Medical Liaison was not significant,  $F(1, 92) = .32, p = .573$ . Therefore, the null hypothesis for gender was retained. The effect size of ML gender, as measured by  $\eta^2$ , was small ( $< .01$ ). That is, less than 1% of the variance in Encourage the Heart scores were accounted for by ML gender. The Encourage the Heart mean for females ( $M = 50.35, SD = 9.67$ ) was only one point lower than the mean for males, ( $M = 51.39, SD = 9.54$ ).

The main effect of age of the Medical Liaison was not significant,  $F(2, 92) = .53, p = .589$ . Therefore, the null hypothesis was retained. The effect size for ML age was small ( $.01$ ). This means only 1% of the variance in Medical Liaisons' perceptions of their Field Directors' Encourage the Heart leadership practice was accounted for by ML age. The differences in Encourage the Heart means by ML age was small with the highest mean from Medical Liaisons aged 40 and younger ( $M = 51.43, SD = 8.11$ ) and lowest mean from those aged 51 and older ( $M = 50.21, SD = 7.27$ ). This was only a difference of 1.2 points.

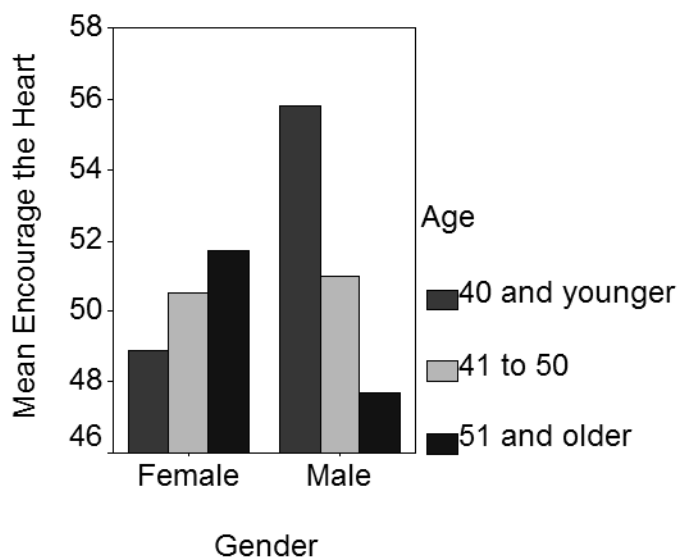
The means and standard deviations for Encourage the Heart by ML gender and ML age are shown in Table 8. A bar chart of Encourage the Heart means by ML gender and ML age is shown in Figure 10.

Table 8

Means and Standard Deviations for Medical Liaisons' Perceptions of their Field

Directors' Encourage the Heart Leadership Practice

ML Gender	ML Age	<i>n</i>	<i>M</i>	<i>SD</i>
Female	40 and younger	19	48.89	9.07
	41 to 50	17	50.53	13.44
	51 and older	18	51.72	5.45
	Female Total	54	50.35	9.67
Male	40 and younger	11	55.82	3.03
	41 to 50	22	51.00	11.10
	51 and older	11	47.73	9.30
	Male Total	44	51.39	9.54
Total	40 and younger	30	51.43	8.11
	41 to 50	39	50.79	12.01
	51 and older	29	50.21	7.27
	Total	98	50.82	9.57



*Figure 10.* Bar Graph of Medical Liaisons' Means for Encourage the Heart by ML Gender and ML Age

To investigate the fourth research question and evaluate the hypotheses,  $t$  tests for independent samples were conducted to determine if there was a difference in the five leadership practices means of Medical Liaisons who report to female Field Directors and Medical Liaisons who report to male Field Directors. The Levene's test for equality of variances was used to test the assumption that the variances of the two groups were equal.

*Research Question 4.* Are there differences in Medical Liaisons' perceptions of their Medical Affairs Field Directors' leadership practices based on the gender of the Medical Field Director?

Ho4<sub>1</sub> There is no difference in Medical Liaisons' perceptions of their Field Directors' Model the Way leadership practice between Medical Liaisons who report to female Field directors and Medical Liaisons who report to male Field Directors.

A *t* test for independent samples was conducted to determine if there was a difference in the Model the Way means of Medical Liaisons who report to female Field Directors and Medical Liaisons who report to male Field Directors. The Levene's test for equality of variances was significant,  $F(1, 97) = 5.50, p = .021$ , indicating that equal variances could not be assumed. Therefore, the *t* test which does not assume equal variances was used to test the null hypothesis. The *t* test was significant,  $t(89) = 2.91, p = .005$ . Therefore, the null hypothesis was rejected. The effect size, as measured by  $\eta^2$ , was medium (.07). In other words, 7% of the variance in Model the Way scores was accounted for by the gender of the Field Director. The Model the Way mean for Medical Liaisons who reported to female Field Directors ( $M = 53.60, SD = 5.80$ ) was four points higher than the mean for Medical Liaisons who reported to male field directors ( $M = 49.56, SD = 7.88$ ). Figure 11 shows the boxplots for Model the Way scores by gender of the field director.



Notes: o = an observation between 1.5 times to 3.0 times the interquartile range;

\* = an observation which is more than 3.0 times the interquartile range

*Figure 11* Boxplots for Model the Way by Gender of the Field Director

Ho4<sub>2</sub> There is no difference in Medical Liaisons' perceptions of their Field Directors' Inspire a Shared Vision leadership practice between Medical Liaisons who report to female Field directors and Medical Liaisons who report to male Field Directors.

A *t* test for independent samples was conducted to determine if there was a difference in the Inspire a Shared Vision means of medical liaisons who report to female Field Directors and Medical Liaisons who report to male Field Directors. The Levene's test for equality of variances was not significant,  $F(1, 98) = 2.09$ ,  $p = .151$ , indicating that the variances are equal variances. Therefore, the *t* test which assumes equal variances was used to test the null hypothesis. The *t* test was significant,  $t(98) = 2.52$ ,  $p = .013$ . Therefore, the null hypothesis was rejected. The effect size, as measured by  $\eta^2$ ,

was medium (.06). That means 6% of the variance in Inspire a Shared Vision scores was accounted for by the gender of the field director. The Inspire a Shared Vision mean for Medical Liaisons who reported to female Field Directors ( $M = 49.14$ ,  $SD = 8.93$ ) was 5.6 points higher than the mean for Medical Liaisons who reported to male field directors ( $M = 43.53$ ,  $SD = 11.52$ ). Figure 12 shows the boxplots for Inspire a Shared Vision scores by gender of the Field Director.

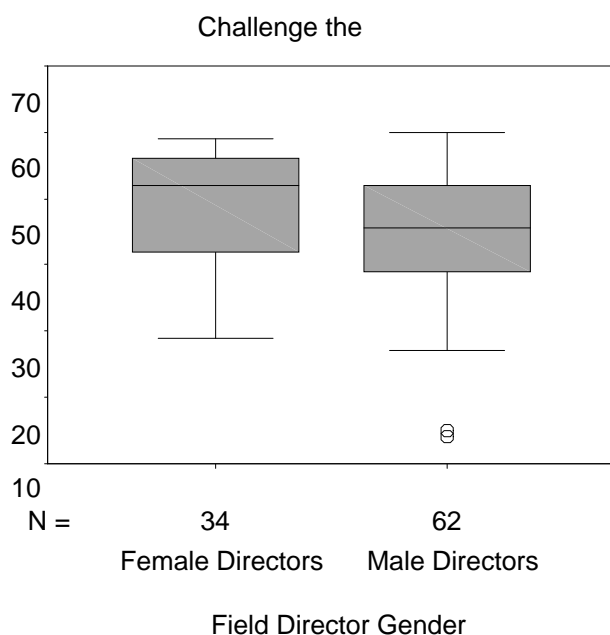


*Figure 12* Boxplots for Inspire a Shared Vision by Gender of the Field Director

Ho<sub>4</sub> There is no difference in Medical Liaisons' perceptions of their Field Directors' Challenge the Process leadership practice between Medical Liaisons who report to female Field directors and Medical Liaisons who report to male Field Directors.

A *t* test for independent samples was conducted to determine if there was a difference in the Challenge the Process means of Medical Liaisons who report to female Field Directors and Medical Liaisons who report to male Field Directors. The Levene's

test for equality of variances was not significant,  $F(1, 94) = 1.02, p = .314$ , indicating that equal variances could be assumed. Therefore, the  $t$  test which assumes equal variances was used to test the null hypothesis. The  $t$  test was significant,  $t(94) = 2.62, p = .010$ . Therefore, the null hypothesis was rejected. The effect size, as measured by  $\eta^2$ , was medium (.07). In other words, 7% of the variance in Challenge the Process scores were accounted for by the gender of the Field Director. The Challenge the Process mean for Medical Liaisons who reported to female Field Directors ( $M = 49.12, SD = 8.29$ ) was 5.2 points higher than the mean for Medical Liaisons who reported to male field directors ( $M = 43.90, SD = 9.84$ ). Figure 13 shows the boxplots for Challenge the Process scores by gender of the Field Director.



Note: o = an observation between 1.5 times to 3.0 times the interquartile range.

Figure 13 Boxplots for Challenge the Process by Gender of the Field Director

Ho4<sub>4</sub> There is no difference in Medical Liaisons' perceptions of their Field Directors' Enable Others to Act leadership practice between Medical Liaisons who report to female Field directors and Medical Liaisons who report to male Field Directors.

A *t* test for independent samples was conducted to determine if there was a difference in the Enable Others to Act means of Medical Liaisons who report to female Field Directors and Medical Liaisons who report to male Field Directors. The Levene's test for equality of variances was not significant,  $F(1, 96) = .516, p = .474$ , indicating that equal variances could be assumed. Therefore, the *t* test, which assumes equal variances was used to test the null hypothesis. The *t* test was not significant,  $t(96) = 1.44, p = .152$ . Therefore, the null hypothesis was retained. The effect size, as measured by  $\eta^2$ , was small (.02). In other words, 2% of the variance in Enable Others to Act scores was accounted for by the gender of the Field Director. The Enable Others to Act mean for Medical Liaisons who reported to female Field Directors ( $M = 55.32, SD = 6.07$ ) was only two points higher than the mean for Medical Liaisons who reported to male Field Directors ( $M = 53.16, SD = 7.54$ ). Figure 14 shows the boxplots for Enable Others to Act scores by gender of the Field Director.





Notes: o = an observation between 1.5 times to 3.0 times the interquartile range;

\* = an observation which is more than 3.0 times the interquartile range

*Figure 14* Boxplots for Enable Others to Act by Gender of the Field Director

Ho4<sub>5</sub> There is no difference in Medical Liaisons' perceptions of their Field Directors' Encourage the Heart leadership practice between Medical Liaisons who report to female Field directors and Medical Liaisons who report to male Field Directors.

A *t* test for independent samples was conducted to determine if there was a difference in the Encourage the Heart means of Medical Liaisons who report to female Field Directors and Medical Liaisons who report to male Field Directors. The Levene's test for equality of variances was significant,  $F(1, 96) = 7.36, p = .008$ , indicating that equal variances could not be assumed. Therefore, the *t* test, which does not assume equal variances was used to test the null hypothesis. The *t* test was significant,  $t(95) = 3.54, p = .001$ . Therefore, the null hypothesis was rejected. The effect size, as measured by  $\eta^2$ ,

was medium (.09). This means that 9% of the variance in Encourage the Heart scores was accounted for by the gender of the Field Director. The Encourage the Heart mean for Medical Liaisons who reported to female Field Directors ( $M = 54.69$ ,  $SD = 6.44$ ) was six points higher than the mean for Medical Liaisons who reported to male Field Directors ( $M = 48.67$ ,  $SD = 10.37$ ). Figure 15 shows the boxplots for Encourage the Heart scores by gender of the Field Director.



Notes: o = an observation between 1.5 times to 3.0 times the interquartile range;

\* = an observation which is more than 3.0 times the interquartile range

*Figure 15* Boxplots for Encourage the Heart by Gender of the Field Director

## Summary of Results

The results presented in this chapter are from the surveys collected from the Field Directors and the Medical Liaisons who report to them at a pharmaceutical company. The Leadership Practices Inventory yielded data that tested the differences between the scores of the Field Directors self-reported leadership practices and the Kouzes-Posner norms and the scores of their Medical Liaisons. When compared to the Kouzes-Posner norms, the Field Directors scores were significantly higher for Model and Way and Enable Others to Act. Although not significant, the self-reported scores for Encourage the Heart were two points higher than the Kouzes-Posner norm. When compared to their Medical Liaison's scores, the Field Directors' self-ratings were lower for all five leadership practices, however; the differences were small.

In addition, the effect of the Medical Liaisons' age and Medical Liaisons' gender on the perceptions of the leadership practices of Field Directors was analyzed. The effect of the age and gender of the Medical Liaisons on the scores of their Field Directors' was not significant for any of the five leadership practices.

Last, the scores for the five leadership practices of the male Field Directors were compared to the scores of the five leadership practices for female Field Directors. The female Field Directors scored significantly higher for four of the five leadership practices including Model the Way, Inspire a Shared Vision, Challenge the Process, and Encourage the Heart than the male Field Directors. Female Field Directors scored two points higher than male Field Directors for Enable Others to Act, but this was not significant. Further discussion about these findings will be presented in chapter 5.

## CHAPTER V

### Discussion

In this concluding chapter, an overview of the purpose and the methodology of the study are provided. A summary and discussion of the results are given along with how the results of this current research compares to previous findings discussed in the literature review. Additionally, limitations of the study are reviewed and last, recommendations for further research are given.

The purpose of this dissertation was to evaluate the leadership practices of Field Directors at a pharmaceutical company as defined in the research of Kouzes and Posner (1995). Leaders have a substantial impact on those who report to them. Their influence has been associated with turnover, job performance, employee engagement, motivation and job satisfaction. As previously discussed, the direct manager is the leader who has the most influence on his or her follower's desire to stay or leave the organization, his or her commitment to the organization's values and mission, his or her ethical decisions and actions, his or her ability to meet performance criteria, and his or her individual career development (Kouzes & Posner, 2010).

These principles are applicable to the pharmaceutical industry; therefore, it is important to identify the self-reported leadership practices of Field Directors and the perceptions of the Medical Liaisons who report to them. Additionally, there is research that evaluated the effect of age and gender on followers' perceptions of their leaders as well as the effect of gender on the leaders' practices (Aldoory & Toth, 2009; Artley, 2008; Bass, 1994; Carless, 1998; Eagly, Johannesen-Schmidt, & van Engen, 2003;

Garcia-Ratembero & Lopez-Zafra, 2006; Grafton, 2010; Hsiao-Kuang, 2011; Reiter, 1977). The questions asked to evaluate this problem included:

*Research Question 1.* Are there differences between the five self-reported leadership practices of Field Directors in the current study and the Kouzes-Posner norms for these leadership practices?

*Research Question 2.* Are there differences between Field Directors' self-reported leadership practices and Medical Liaisons' perceptions of their Field Directors' leadership practices?

*Research Question 3.* Are there differences in Medical Liaisons' perceptions of their Field Directors' leadership practices based on ML gender and ML age?

*Research Question 4.* Are there differences in Medical Liaisons' perceptions of their Medical Affairs Field Directors' leadership practices based on the gender of the Medical Field Director?

To evaluate the research questions, Field Directors were surveyed on their self-reported leadership practices using the Leadership Practices Inventory - Self. The Medical Liaisons were surveyed on their perceptions of their Field Director's leadership practices using the Leadership Practices Inventory – Observer. To analyze the first research question and null hypotheses, single  $t$  tests were used to compare the difference between the self-reported leadership practices of Field Directors and the Kouzes-Posner norms. The second research question and null hypotheses were analyzed using paired  $t$  tests to compare the Field Directors' self-reported leadership practices and the Medical Liaisons perceptions of their Field Director's leadership practices. To analyze the third

research question and null hypotheses, a two-way ANOVA model was used to determine the differences in the perceptions of the Medical Liaisons based on ML age and ML gender. Last, a *t* test for independent samples was used to analyze the fourth question and null hypotheses: does the gender of the Field Director impact the Medical Liaisons' perceptions of leadership practices?

### Discussion of Findings

The first research question compared the Field Directors' self-reported ratings of his or her leadership practices to the Kouzes-Posner norms. Two of the five leadership practices evaluated, Model the Way and Enable Others to Act resulted in statistically significant differences. The self-rated score for Model the way was 3.4 points higher than the norm ( $p = .015$ ), and Enable Others to Act was 2.8 points higher ( $p = .022$ ). The three other leadership practices, Inspire a Shared Vision, Challenge the Process, and Encourage the Heart, were not statistically significant; the self-reported ratings were equal to the Kouzes-Posner norm or slightly higher. These results indicated that the Field Directors' self-reported leadership practices were similar to or higher than the published norms.

The second research question compared the Field Director's self-reported ratings of their leadership practices to the ratings by their Medical Liaisons. The analysis did not show statistical significance. However, it is interesting to note that the Medical Liaisons rated their Field Directors higher in all five of the leadership practices. Specifically, Model the Way was rated 1.2 points higher, Inspire a Shared Vision was rated 2.3 points

higher, Challenge the Process was rated 2.6 points higher, Enable Others to Act was rated 1.8 points higher, and Encourage the Heart was rated 2.5 points higher.

The Field Directors' higher self-reported ratings when compared to the Kouzes-Posner norms were, in a sense, validated by their Medical Liaisons who rated their Field Directors even higher than the Field Directors rated themselves. It seems reasonable to conclude that the Field Directors at this pharmaceutical company demonstrated the five practices of exemplary leadership as defined by Kouzes and Posner (1995).

The third research question, which evaluated the effect of ML age and ML gender on the Medical Liaisons perceptions of their Field Directors' leadership practices did not show statistical significance for any of the five of the leadership practices analyzed. The conclusion made for this population was that the age and gender of the Medical Liaison has little to no effect on how they perceived their Field Director's leadership practices. In the literature review a quote was shared from Kouzes and Posner (2010) which stated, "When it comes to generating positive work attitudes, it doesn't matter if you're a Traditionalist, a Boomer, a Gen-Xer, or a Millennial. Good leadership is good leadership regardless of age....the context of leading may change a lot, but the content of leading changes very little" (p. xvii). Perhaps this is also true of followers, regardless of their age. Good leadership practices of Field Directors were perceived consistently by the Medical Liaisons who reported to them, whether they were 27 or 70 years of age.

Likewise, perceptions of gender in leadership were discussed in Chapter 2. Highlighted in the literature review was the congruity theory by Eagly and Karau (2002), which stated that prejudice against female leaders varies with the amount of incongruity between the leadership role and the feminine gender role. Many employees at

pharmaceutical companies are healthcare providers; this is particularly true of the medical affairs division, which included the Field Directors and Medical Liaisons surveyed for this study. Many occupations in healthcare involve caring and giving support, which are congruent with the feminine role; however, characteristics like authority and power are also related to occupations in healthcare and are congruent with the masculine role (Garcia-Ratembero & Lopez-Zafra, 2006). Furthermore, the role of Field Director requires a significant amount of human interaction, which is also congruent with the feminine gender role (Garcia-Ratembero & Lopez-Zafra, 2006). The congruency between both masculine and feminine roles may be one explanation for the lack of differences between male and female Medical Liaisons' perceptions of their Field Director's leadership practices.

The fourth research question examined the differences in Medical Liaisons' perceptions of their Field Directors' leadership practices based on the gender of the Field Director. The results of this analysis revealed that in all five of the leadership practices, female Field Directors were rated higher by the Medical Liaisons who report to them than the male Field Directors were rated by their Medical Liaisons. Four of the five leadership practices had differences that were statistically significant. Specifically, for Model the Way, the mean difference was 4.0 points ( $p = .005$ ), for Inspire a Shared Vision, the mean difference was 5.6 points ( $p = .013$ ), for Challenge the Process the mean difference was 5.2 ( $p = .0100$ ), for Enable Others to Act the mean difference was 2.2 ( $p = .152$ ), and for Encourage the Heart the mean difference was 6.0 ( $p = .001$ ).

The research discussed in the literature review that utilized the Kouzes and Posner model did not show differences in leadership practices based on gender (Hsiao-Kuang,



2011 and Kahl, 1999). However, this current study did align the Kouzes and Posner model with other research that demonstrated that transformational leadership style was more consistent with the feminine role and suggested that this provides an advantage for women in leadership.

As discussed in the literature review, small but noteworthy differences between male and female leadership styles were found in the meta-analysis of 45 studies by Eagly et al. (2003). The authors concluded that women leaders were more transformational than men. Aldoory and Toth's (2009) research in the public relations field found that female leaders had slightly higher transformational leadership scores than their male counterparts. Additionally, Vinkenbunrg et al. (2011) noted women's ability to demonstrate sensitivity and strength with inspirational motivation is conducive to transformational leadership. Despite the challenges for women highlighted by the congruity theory (Eagly & Karau, 2002), this current research supports the suggestion that the feminine role provides advantages in the workplace (Vickenburg et al., 2011).

Northouse's (2010) review of women and leadership summarized that women are more likely to use participatory and democratic leadership styles, transformational leadership behaviors, and contingent rewards. These practices are consistent with effective leadership. Transformational leadership encompasses many traditional feminine behaviors, such as consideration and support (Northouse, 2010). Likewise, the leadership model developed by Kouzes and Posner (1995) is congruent with the feminine gender role. Specifically the five leadership practices, Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart, are consistent with both feminine behavior and exemplary leadership.

The results of the research of the leadership practices of Field Directors at a pharmaceutical company provided insights that will allow further development of transformational leadership skills. The results revealed that the Field Directors' leadership practices scores are similar to the published norms and the ratings by the Medical Liaisons of the Field Directors are higher than the norms and the Field Directors' self-ratings. This indicated that transformational leadership is currently a style of leadership that is being used by the Field Directors and is consistent with the company's way of management. This supports increasing the Field Directors' knowledge of the transformational leadership style and further developing the accompanying behaviors and practices.

The finding that the female Field Directors had higher ratings than male Field Directors for leadership practices also provides insights for developing transformational leadership skills and capabilities. Behaviors aligned with transformational leadership such as supporting, encouraging, modeling, and enabling are associated with the feminine role; however, these are skills that can be learned and developed by men and women alike.

### Summary of Results

This research study revealed that the leadership practices of Field Directors at a pharmaceutical company were consistent with published norms for the five behaviors studied. The ratings from the Medical Liaisons who report to the Field Directors also demonstrated that the Field Directors exemplify the leadership practices studied. The results of the study showed that the gender and age of the Medical Liaisons does not affect their perceptions of the leadership practices of their Field Directors. The study

results indicated that female Field Directors were rated higher than their male counterparts by their Medical Liaisons for the five leadership practices. This difference between male and female leaders was consistent with previous studies evaluating transformational leadership. These findings provide insights that can assist in further leadership development of Field Directors at a pharmaceutical company.

### Limitations

1. One limitation of this study is that it had a relatively small population size. The study included only one pharmaceutical company and only one department of that company, Field Medical Affairs.

2. The study did not include all the leaders at the pharmaceutical company; the study was limited specifically to Field Directors and was dependent upon the survey responses of the Field Directors and the Medical Liaisons who report to them. Leaders from other divisions such as sales, marketing, or clinical trials may have different leadership practices.

3. The corporate culture at the pharmaceutical company where the study was conducted is compatible with the transformational leadership style. A pharmaceutical company with a corporate culture that is more compatible with transactional leadership or other leadership style is likely to yield different results.

4. Another limitation of the study may be found in the survey method, which was completed using an on-line survey tool. The efficiency of this tool allowed for rapid distribution of the survey and collection of the results. This method prevented informed consent of the Medical Liaisons to be obtained in person (Informed consent was given in

person by the majority of the Field Directors). The informed consent was implied through the completion of the survey by the participants. Further, the informed consent was explained in the introduction of the survey as described in the Chapter 3. Therefore, this potential limitation has been addressed.

5. The current research was limited to the one affiliate company in the United States. Field Directors in different countries, for example the headquarters in Europe or affiliates in Asia, may have leadership practices that are very different than those of Field Directors in the United States of America.

#### Recommendations for Further Research

This study provided insights to the leadership practices of Field Directors at a pharmaceutical company. Specifically, the results showed that the Field Directors' self-reported leadership practices were similar to or higher than the Kouzes-Posner norms as well as their Medical Liaisons' perceptions of their leadership practices. Additionally, this study supported previous research findings related to women and transformational leadership. The results showed that the female Field Directors were rated higher by their Medical Liaisons on the five leadership practices when compared to the male Field Directors. On the basis of the research completed in this study, the following recommendations for further research are made:

1. Further research is needed in a larger population of Field Directors to validate the findings of the current study.

2. Further research is needed to extend beyond the scope of Medical Affairs and evaluate leaders in other areas of pharmaceutical companies such as marketing, sales, and regulatory. Leaders without healthcare backgrounds may have similar or different results.

3. Further research is needed in to expand the geographic boundaries of the study beyond the United States. Differences in leadership practices may exist based upon cultural norms and values.

4. Further research is needed to study leaders in other industries, such as engineering, law, education, and business. A study comparing leaders in the private sector to the public sector may provide additional learning.

5. Further research with qualitative methods to analyze leadership practices through personal interviews and observations instead of or in addition to the survey method would provide further insights.

### Conclusion

Each of the leadership approaches; trait, skills, and style, provide valuable insight to the understanding of leadership. However, limiting the focus to the leader without evaluating the impact the leader has on the followers greatly limits their usefulness. The most successful leaders are those who can create significant change in their organizations by empowering and motivating others (Kouzes & Posner, 1995). Exemplary leaders have the ability help others achieve their personal best. When the talents, abilities, ambitions, and goals of their followers are aligned with the mission and vision of the organization, the leader achieves transformation. This is transformational leadership.

There are tremendous benefits of transformational leadership. When a leader can inspire others to transcend their own interests and align their goals and behaviors with the organizations they serve, visions can be reached. When leadership is transformational, the aspirations of the individual, the leader, and the community are more likely to be achieved. This creates a sense of fulfillment and well-being.

A practical model of this style of leadership is the one developed by Kouzes and Posner and described in *The Leadership Challenge* (1995). The accompanying survey, the Leadership Practices Inventory, provides a valid and reliable assessment of the five exemplary leadership practices which include: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart. This provided the foundation for this study.

The results of this study showed that the Field Directors at the pharmaceutical company studied were exhibiting the leadership practices defined by Kouzes and Posner (1995). The self-rated of the Field Directors were higher than the Kouzes-Posner norms and the scores given to the Field Directors by their Medical Liaisons were even higher. An interesting discovery was the results of the ratings of the Medical Liaisons that showed that the female Field Directors were demonstrating the five exemplary leadership practices at a higher level than the male Field Directors. This supported the literature that concluded that women might have an advantage in regards to being transformational leaders. Transformational leadership, including the leadership practices developed by Kouzes and Posner (1995), has shown many advantages in the workplace. Developing these exemplary practices as well as helping others develop these practices provides a unique opportunity for women to take the lead.

Transformational leadership, particularly the model developed by Kouzes and Posner (1995), is useful for evaluating and developing leaders whose purpose is to challenge their constituents to achieve extraordinary success aligned with the organizations they serve. More than any other time in history, inspirational, empowering and visionary leaders are needed to guide their followers to achieve not only their own goals, but to achieve the mission of their organizations. By developing the four factors of transformational leadership developed by Bass (1999) and learning the five exemplary practices identified Kouzes and Posner (1995) the leaders of today can be prepared to positively the impact the constituents and the communities they serve for a better tomorrow.

## REFERENCES

- Aldoory, L. & Toth, E. (2004) Leadership and Gender in Public Relations: Perceived Effectiveness of Transformational and Transactional Leadership Styles. *Journal of Public Relations Research*, 16 (2), 157 – 183.
- Artley, J.B. (2008) The Impact of Leadership Practices of Generation X Employee Commitment in the Health Insurance Industry. Unpublished Doctoral Dissertation, School of Business and Entrepreneurship, Nova Southeastern University, Fort Lauderdale, FL.
- Ashour, A.S. (1973) The Contingency Model of Leadership Effectiveness: An Evaluation. *Organizational Behavior and Human Performance*, 9, 339 – 355.
- Ayman, R., Chemers, M.M., Fiedler, F. (1995) The Contingency Model of Leadership Effectiveness: Its Levels of Analysis. *Leadership Quarterly*, 6 (2), 147 – 167.
- Bardley-Magnuson, LynnDee (1996) An Examination of Self-Reported Leadership Practices of Identified Nursing Leaders at the Tucson Veterans Affairs Medical Center. Unpublished Doctoral Practicum Report, Nova Southeastern University, Fort Lauderdale, FL.
- Bass, B.M. (1990) From Transactional to Transformational Leadership: Learning to Share the Vision. *Organizational Dynamics*, 19 – 31.



- Bass, B.M. (1995) Theory of Transformational Leadership Redux. *Leadership Quarterly*, 6(4), 463 – 478.
- Bass, B.M. (1999) Two Decades of Research and Development in Transformational Leadership. *European Journal of Work and Organizational Psychology*, 8(1), 9 – 32.
- Bass, B.M. & Avolio, B.J. (1994) Shatter the glass ceiling: Women may make better managers. *Human Resource Management*, 33 (4), 549 – 560. Doi: 10.1002/hrm.3930330405.
- Bass M.B. & Steidlmeier, P. (1999) Ethics, Character and Authentic Transformational Leadership Behavior, *Leadership Quarterly*, 10 (2), 181 – 217.
- Bass, B.M., Waldman, D.A., Avolio, B.J., & Bebb, M. (1987) Transformational Leadership and the Falling Dominoes Effect. *Group & Organizational Management*, 12 (1) 73 – 87.
- Bieber, V.H. (2003) Leadership Practices of Veterans Health Administrator Nurse Executives: An Exploration of Current Practices and Professional Development Needs. Unpublished Doctoral Dissertation. East Tennessee State University, Johnson City, TN.
- Blanchard, K.H., Zigarmi, D., & Nelson R.B. (1993) Situational Leadership After 25 Years: A Retrospective. *Journal of Leadership & Organizational Studies*, 1 (21) 22-

36.

Blake, R.R. & Mouton, J.S. (1981) Management by Grid® Principles or Situationalism:

Which? Group & Organization Studies, 6 (4) 439 – 455.

Carless, S.A. (1998) Gender Differences in Transformational Leadership: An

Examination of Superior, Leader, and Subordinate Perspectives. Sex Roles, 39

(11/12) 887 - 901.

Casimir, G. (2001) Combinative aspects of leadership style: The ordering and spacing of

leadership behaviors. The Leadership Quarterly, 12 (3), 245 – 278.

Chin, J. (2013) What is Your Organization's Retention Culture? The Medical Science

Liaison Institute, 10 (1).

Conger, J.A. (1999) Charismatic and Transformational Leadership in Organizations: An

Insider's Perspective of These Developing Streams of Research. The Leadership

Quarterly, 10 (2), 145- 179.

Day, S. (2003) Leadership Practices of Project Scientists at the United States National

Aeronautics and Space Administration. Unpublished Doctoral Dissertation. Fielding

University, Santa Barbara, CA.

Deluga, R.J. (1998) Leader-member exchange quality and effectiveness ratings: The role

of subordinate-supervisor conscientiousness similarity. *Group and Organizational Management*, 23, 189 – 216.

Divir, T., Eden, D., Avolio, B.J., Shamir, B. (2002) Impact of Transformational Leadership of Follower Development and Performance: A Field Experiment. *Academy of Management Journal*, 45 (4) 735 – 744.

Dumovic, P., & Chin, J. (2008) Marketing Masterclass Medical Science Liaisons: A Look to the Future. *Journal of Medical Marketing: Device, Diagnostic and Pharmaceutical Marketing*, 8: 193. DOI: 10.1057/jmm.2008.12.

Eagly, A.H., Johannesen-Schmidt, M.C., & van Engen, M.L. (2003) Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men. *Psychological Bulletin*, 129 (4), 569 – 591.

Eagly, A.H. & Karau, S.J. (2002) Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109 (3), 573 – 598.

Francis, P.P. (2008) Leadership Practices of Nurse Practitioners. Unpublished Doctoral Dissertation. Case Western Reserve University, Cleveland, OH

Garcia-Retamero, R. & Lopez-Zafra, E. (2006) Prejudice against Women in Male-congenial Environments: Perceptions of Gender Role Congruity in Leadership. *Sex Roles*, 55, 51 – 61. DOI: 10.1007/s 11199-006-9068-1.

- Gerstner, C.R. & Day, D.V. (1997) Meta-Analytic Review of Leader-Member Exchange Theory: Correlates and Construct Issues. *Journal of Applied Psychology*, 82 (6), 827-844.
- Goldberg, L.R. (1990) An Alternative “Description of Personality”: The Big-Five Factor Structure. *Journal Of Personality and Social Psychology*, 59 (6), 1216 – 1229.
- Graen, G.B., & Scandura, T.A. (1987) Toward psychology of dyadic organizing. *Research in Organizational Behavior*, 9, 175 – 208.
- Graen, G.B. & Uhl-Bien, M. (1995) Relationship-Based Approach to Leadership: Development of Leader-Member Exchange (LMX) Theory of Leadership Over 25 Years: Applying A Multi-Level Multi-Domain Perspective. *Leadership Quarterly*, 6 (2), 219 – 247.
- Graham, J.W. (1991) Servant-Leadership in Organizations: Inspirational and Moral, *Leadership Quarterly*, 2 (2), 105 – 119.
- Green, J.L. (2012) The Leadership Practices of Executive Women of Local Government. Unpublished Dissertation, University of Phoenix.
- Gursoy, D., Maier, T.A., & Chi, C.G. (2008) Generational Differences: An examination of work values and generational gaps in the hospitality workforce. *International Journal of Hospitality Management*, 27, 448 – 458.

- Howell, J.M., Avolio, B.J. (1993) Transformational Leadership, transactional leadership, locus of control, and support for innovation: Key predictors of consolidated-business-unit performance. *Journal of Applied Psychology*, 78 (6), 891 – 902.
- House, R.J. (1996) Path-Goal Theory of Leadership: Lessons, Legacy, An A Reformulated Theory. *Leadership Quarterly*, 7 (3), 323 – 352.
- Judge, T.A., Bono, J.E., Ilies, R. & Gerhardt, M.W. (2002) Personality and leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, 87 (4) 765 – 780.
- Kahl, W.T. (1999) The Relationship Between Gender Differential Values and Leadership Behaviors of Regional Managers at a Large Government Agency. Unpublished Doctoral Dissertation, University of San Francisco, San Francisco, CA.
- Katz, R.L. (1974) Skills of an Effective Administrator. *Harvard Business Review*
- Keller, R.T. (1992) Transformational Leadership and the Performance of Research Development Project Groups. *Journal of Management*, 18(3) 489- 501  
DOI: 10.1177/014920639201800304.
- Kirkpatrick, S.A. & Locke, E.A. (1991) Leadership: do traits matter? *Academy of Management Perspectives*, 5 (2) 48 – 60.

Kouzes, J.M. & Posner, B.Z. (2010) *The Truth About Leadership*, San Francisco, CA  
Jossey-Bass Inc., Publishers.

Kouzes, J.M. & Posner, B.Z. (1995) *The Leadership Challenge*, San Francisco, CA:  
Jossey-Bass Inc., Publishers.

Kusy, M., Essex, L.N., & Marr, J.T. (1995) No Longer a Solo Practice: How Physician  
Leaders Lead, *Physician Executive*, 21(12) 11 – 15.

Lieber, L.D. (2010) How HR Can Assist in Managing the Four Generation in Today's  
Workplace, *Employment Relations Today*, Winter 2010, 85 – 91.

Lord, R.G., de Vader, C.L., & Alliger, G.M. (1986) A meta-analysis of the relation  
between personality traits and leadership perceptions: An application of validity  
generalization procedures, *Journal of Psychology*, 71 (3) 402 – 410.

Mann, J. (2006) Generations in the Workplace, *The Bulletin*, 74 (1) 1 – 7.

Maslow, A.H. (1954) *Motivation and personality*. New York: Harper.

McMahon, J.T. (1972) The Contingency Theory: Logic and Method Revisited. *Personnel  
Psychology*, 25, 697 – 710.

Morgan, D.K., Domann, D.E., Collins, G.E., Massey, K.L., & Moss, R.J. (2000) History  
and Evaluation of Field-Based Medical Programs. *Drug Information Journal* 34,

1049 – 1052. DOI: 10.1177/009286150003400408.

Northouse, P.G. (2010) *Leadership – Theory and Practice*. Thousand Oaks, CA: SAGE Publications.

Reiter, B. (1977) *Leadership of Women and Women Owners of Manufacturing*. Unpublished Thesis, University of Wisconsin-Stout, Menomonie, WI.

Russell, R.F., & Stone, A.G. (2002) A review of servant leadership attributes: developing a practical model. *Leadership & Organizational Development Journal*, 23 (3), 145 – 157.

Sendhaya, S. & Sarros, J. C. (2002) *Servant Leadership: Its Origin, Development, and Application in Organizations*. *Journal of Leadership and Organizational Studies*, 9 (2), 57 – 64.

Shamir, B. & Howell, J.M. (1999) Organizational and Contextual Influences on the Emergence and Effectiveness of Charismatic Leadership. *Leadership Quarterly*, 10 (2), 257 – 283.

Sharma, R.R. (2008) Emotional Intelligence from 17<sup>th</sup> Century: Perspectives and Directions for Future Research. *Journal of Business Perspectives*, 12 (59), 59 – 66.

Stewart, J. (2006) *Transformational Leadership: An Evolving Concept Examined through*

the Works of Burns, Bass, Avolio, and Leithwood. *Canadian Journal of Educational Administration and Policy*, 54, 1 – 29.

Suhelya, A. & Sergul, D. (2008) Perceived Leadership and Its Relationship to Organizational Commitment, Job Satisfaction, and Intention to Leave among Staff Nurses. Paper presented at the 4<sup>th</sup> International Nursing Management Conference, Turkey.

Tien, H. K., (2011) Comparing Managerial Leadership Practices in Southern California and in Southern China. Unpublished Dissertation, Argosy University, Chicago, IL.

Truckenbrodt, Y.B. (2000) The relationship between Leader-Member Exchange and Commitment and Organizational Citizenship Behavior. *Acquisition Review Quarterly*, 233 – 244.

Vinkenbunrg, C.J., van Engen, M.L., Eagly, A.H., Johannesen-Schmidt, M.C. (2011) An exploration of stereotypical beliefs about leadership styles: Is transformational leadership a route to women's promotion? *The Leadership Quarterly*, 22 (1), 10 – 21.

Yukl, G. (1999) An Evaluation of Conceptual Weaknesses in Transformational and Charismatic Leadership Theories. *The Leadership Quarterly*, 10 (2), 285 – 305.



APPENDICES

Appendix A

Permission to conduct research from pharmaceutical company

**Personal & Confidential**

To Whom It May Concern,

This letter is to inform you that Jeanine McBee has permission to study the leadership practices of Field Directors at XXXX XXXX. Participants include the Field Directors and the Medical Liaisons who report to them in Medical Affairs. Surveys are anonymous and participation in the survey is optional.

If you have any questions about the details of this project, please feel free to reach out to Jeanine directly.

Sincerely,

XXXX XXXX

Appendix B

Electronic message sent to Field Directors and Medical Liaisons to request participation  
in study

**Electronic message sent to Field Directors on May 9, 2013**

Dear Field Directors,

I am working on a doctorate at Tennessee Temple University. The purpose of this email is to request your assistance with research I am conducting in partial fulfillment of the requirements for a Ph.D. The purpose of my research is to determine the perceptions of the leadership practices of Field Directors and the perceptions of the Medical Liaisons (and RMS) who report to them.

The survey in the link below should take approximately 10 – 15 minutes to complete. Your input is essential to the success of my study. All responses will be confidential. The data will be reported in aggregate form only and your anonymity is guaranteed.

I greatly appreciate your support. If you or your teams have any questions or concerns, please do not hesitate to contact me.

<https://www.surveymonkey.com/s/FDSelf>

Kind regards,

Jeanine

**Electronic message sent to Medical Liaisons on May 9, 2013**

Dear colleague,

I am working on a doctorate at Tennessee Temple University. The purpose of this email is to request your assistance with research I am conducting in partial fulfillment of the requirements for a Ph.D. The purpose of my research is to determine the perceptions of the leadership practices of Field Directors and the perceptions of the Medical Liaisons (or RMS) who report to them.

The survey in the link below should take approximately 10 – 15 minutes to complete. Your input is essential to the success of my study. All responses will be confidential. The data will be reported in aggregate form only and your anonymity is guaranteed.

I greatly appreciate your support. If you have any questions or concerns, please do not hesitate to contact me or your Field Director.

<https://www.surveymonkey.com/s/FDobserver>

Kind regards

Jeanine

Appendix C

Permission to use LPI in Dissertation

April 10, 2013

Dear Ms. McBee:

Thank you for your request to use the Leadership Practices Inventory (LPI) in your dissertation. We are willing to allow you to *reproduce* the instrument in written form, as outlined in your request, at no charge. If you prefer to use our electronic distribution of the LPI (vs. making copies of the print materials) you will need to separately contact Lisa Shannon (lshannon@wiley.com) directly for instructions and payment. Permission to use either the written or electronic versions requires the following agreement:

- (1) That the LPI is used only for research purposes and is not sold or used in conjunction with any compensated management development activities;
- (2) That copyright of the LPI, or any derivation of the instrument, is retained by Kouzes Posner International, and that the following copyright statement is included on all copies of the instrument; "Copyright © 2003 James M. Kouzes and Barry Z. Posner. All rights reserved . Used with permission",
- (3) That one (1) **electronic** copy of your dissertation and one (1) copy of all papers, reports, articles, and the like which make use of the LPI data be sent **promptly** to our attention; and,
- (4) That you agree to allow us to include an abstract of your study and any other published papers utilizing the LPI on our various websites.

If the terms outlined above are acceptable, would you indicate so by signing one (1) copy of this letter and returning it to me either via email or by post to; 1548 Camino Monde San Jose, CA 95125. Best wishes for every success with your research project.

Cordially,

Ellen Peterson  
Permissions Editor

## Appendix D

Permission to send LPI using Survey Monkey Tool

**Electronic message received May 3, 2013**

Dear Jeanine McBee,

This email represents official permission for you to use the LPI Self and/or Observer instruments in English to collect data for your research. You have paid the permissions fee to include the Self and/or Observer instruments in a questionnaire sent out through Survey Monkey or similar questionnaire site, combined with questions of your own. Your questionnaire must be clear about which questions come from the LPI, and must include the appropriate copyright notice(s) from our publications. Our only other request is that you supply us with a copy of your final paper when it is completed.

Thank you for your interest in the Leadership Practices Inventory. Of course, please let me or Ryan Noll know if you have any questions or concerns.

Debbie

--

**Debbie Notkin**  
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Appendix E

Leadership Practices Inventory – Self

1. I set a personal example of what I expect of others
2. I talk about future trends that will influence how our work gets done.
3. I seek out challenging opportunities that test my own skills and abilities.
4. I develop cooperative relationships that test my own skills and abilities.
5. I praise people for a job well done.
6. I spend time and energy making certain that the people I work with adhere to the principles and standards we have agreed on.
7. I describe a compelling image of what our future could be like.
8. I challenge people to try out new and innovative ways to do their work.
9. I actively listen to diverse points of view.
10. I make it a point to let people know about my confidence in their abilities.
11. I follow through on the promises and commitments that I make.
12. I appeal to others to share an exciting dream of the future.
13. I search outside the formal boundaries of my organization for innovative ways to improve what we do.
14. I treat others with dignity and respect.
15. I make sure that people are creatively rewarded for their contributions to the success of our projects.
16. I ask for feedback on how my actions affect other people's performance.
17. I show others how their long-term interests can be realized by enlisting a common vision.
18. I ask "What can we learn" when things don't go as expected.
19. I support the decisions that people make on their own.
20. I publicly recognize people who exemplify commitment to shared values.
21. I build consensus around a common set of values running our organization.

22. I paint the “big picture” of what we aspire to accomplish.
23. I make certain that we set achievable goals, make concrete plans, and establish measureable milestones for the projects and programs that we work on.
24. I give people a great deal of freedom and choice in deciding how to do their work.
25. I find ways to celebrate accomplishments.
26. I am clear about my philosophy of leadership.
27. I speak with a genuine conviction about the higher meaning and purpose of our work.
28. I experiment and take risks, even when there is a chance of failure.
29. I ensure that people grow in their jobs by learning new skills and developing themselves.
30. I give the members of the team lots of appreciation and support for their contributions.

Appendix F

Leadership Practices Inventory – Observer

1. Sets a personal example of what I expect of others
2. Talks about future trends that will influence how our work gets done.
3. Seeks out challenging opportunities that test my own skills and abilities.
4. Develops cooperative relationships that test my own skills and abilities.
5. Praises people for a job well done.
6. Spends time and energy making certain that the people I work with adhere to the principles and standards we have agreed on.
7. Describes a compelling image of what our future could be like.
8. Challenges people to try out new and innovative ways to do their work.
9. Actively listens to diverse points of view.
10. Makes it a point to let people know about my confidence in their abilities.
11. Follows through on the promises and commitments that I make.
12. Appeals to others to share an exciting dream of the future.
13. Searches outside the formal boundaries of my organization for innovative ways to improve what we do.
14. Treats others with dignity and respect.
15. Makes sure that people are creatively rewarded for their contributions to the success of our projects.
16. Asks for feedback on how my actions affect other people's performance.
17. Shows others how their long-term interests can be realized by enlisting a common vision.
18. Asks "What can we learn" when things don't go as expected.
19. Supports the decisions that people make on their own.
20. Publicly recognizes people who exemplify commitment to shared values.
21. Builds consensus around a common set of values running our organization.

22. Paints the “big picture” of what we aspire to accomplish.
23. Makes certain that we set achievable goals, make concrete plans, and establish measureable milestones for the projects and programs that we work on.
24. Gives people a great deal of freedom and choice in deciding how to do their work.
25. Finds ways to celebrate accomplishments.
26. Is clear about my philosophy of leadership.
27. Speaks with a genuine conviction about the higher meaning and purpose of our work.
28. Experiments and takes risks, even when there is a chance of failure.
29. Ensures that people grow in their jobs by learning new skills and developing themselves.
30. Give the members of the team lots of appreciation and support for their contributions.

## Appendix G

Introduction to the LPI- Self Survey and the LPI- Observer Survey

**Introduction to the LPI – Self Survey**

Welcome to the Leadership Practices Inventory  
Field Director Survey

The purpose of the survey is to evaluate the leadership practices of Field Directors.

The results of this survey are anonymous and will be reported in aggregate form only. One of the questions asks for your initials. Your initials are required solely for the purpose of matching field directors with their medical liaisons for statistical comparison. Numeric codes will be assigned to the initials and no individual will be identified. Neither the researcher nor the statistician will be able to identify any specific individual in the data. Your anonymity is protected.

Your completion of the survey provides your consent to participate in this research study.

Thank you in advance for your participation in this study.

**Introduction to the LPI - Observer Survey**

Welcome to the Leadership Practices Inventory  
Medical Liaison/ Regional Medical Scientist Survey

The purpose of the survey is to evaluate the leadership practices of Field Directors.

The results of this survey are anonymous and will be reported in aggregate form only. The initials of your Field Director are required solely for purpose of matching field directors with their medical liaisons for statistical comparison. Numeric codes will be assigned to the initials and no individual will be identified. Neither the researcher nor the statistician will be able to identify any specific individual in the data. Your anonymity is protected.

Your completion of the survey provides your consent to participate in this research study.

Thank you in advance for your participation in this study.



## Appendix H

### Instructions to Complete Surveys - LPI Self and Observer

**Instructions to complete LPI – Self Survey**

In this next section you are being asked to assess your leadership behaviors. Please read each of the 30 statements carefully, and using the rating scale, ask yourself:

"HOW FREQUENTLY DO I ENGAGE IN THE BEHAVIOR DESCRIBED?"

Answer in terms of how you typically behave on most days, on most projects, and with most people.

Be thoughtful about your responses. For example, answering all 10s (Almost Always) or all 1s (Almost Never) on all items is most likely not an accurate description of your behavior. Most people will do some things more or less often than they do other things.

If you feel that a statement does not apply, it's probably because you don't frequently engage in the behavior. In that case, assign a rating of 3 or lower.

The scale runs from "Almost Never" to "Almost Always". Choose the answer that best applies to each statement.

**Instructions to complete LPI – Observer Survey**

In this next section you are being asked to assess your Field Director's leadership behaviors. Please read each of the 30 statements carefully, and using the rating scale, ask yourself:

"HOW FREQUENTLY DOES MY FIELD DIRECTOR ENGAGE IN THE BEHAVIOR DESCRIBED?"

Answer in terms of how this person typically behaves on most days, on most projects, and with most people.

Be thoughtful about your responses. For example, giving this person 10s (Almost Always) or all 1s (Almost Never) on all items is most likely not an accurate description of his or her behavior. Most people will do some things more or less often than they do other things.

If you feel that a statement does not apply, it's probably because you don't see or experience the behavior. This means this person does not frequently engage in the behavior, at least not around you. In that case, assign a rating of 3 or lower.

The scale runs from "Almost Never" to "Almost Always". Choose the answer that best applies to each statement.