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I, Jeanne-Marie Tapke, hereby submit this original work as part of the requirements for the degree of Doctor of Philosophy in Nursing - Doctoral Program.

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Influence of Leader-Follower Coaching Relationships of Transformational Transactional Leaders on Perceived Work-Related Outcomes

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Influence of Leader-Follower Coaching Relationships of Transformational Transactional Leaders on Perceived Work-Related Outcomes

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in partial fulfillment of the requirement for the degree of DOCTORATE OF PHILOSOPHY (Ph. D.)

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by

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I wish to acknowledge the many people who helped me become more than I thought I could be.

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ABSTRACT

Strong nursing leadership is needed to create and maintain a healthy and safe practice environment for both nurses and patients. Acute care hospitals are fundamentally complicated organizations where nurse leaders must answer to numerous stakeholders and meet performance goals across multiple levels of achievement such as quality, cost, and satisfaction. Furthermore, in a recent study of chief nursing officers it was found that 62% of nurse leaders plan to retire, leave the profession, or change jobs within the next five years (Jones, Havens, & Thompson, 2009). This scenario of change requires an in-depth look at options for optimizing the development of highly skilled nurse leaders.

Transformational leadership is identified as an empowering leadership style that can be used within today’s hospital and nursing environment to improve organizational outcomes (McGuire & Kennerly, 2006). Coaching is believed to encompass several key characteristics of transformational transactional leadership and may be an effective means of developing and/or expanding the leader’s skills and of guiding leader development of followers (Humphreys & Einstein, 2003; Kowalski & Casper, 2007).

Using a correlated, non-experimental design, this research study explored the relationships between transformational and transactional leadership, coaching, and the impact of the leader-follower coaching relationship on followers’ work performance, job satisfaction, work relationships, and job commitment. The sample consisted of 53 chief nurse leaders in hospital organizations and 301 of their direct nurse reports. The Multifactor Leadership Questionnaire (5X – Short) developed by Bass and Avolio (1999), a researcher-developed Coaching Behavior Measure (Ellinger, Ellinger, & Keller, 2003), and four researcher-developed visual analogue surveys of work-related outcomes were used to measure the variables of interest.
Data analysis revealed the nurse leaders were dominantly transformational and used coaching behaviors frequently. The coaching relationship of the leader-follower positively impacted the followers’ work performance, job satisfaction, work relationships, and organizational commitment. Coaching was strongly related to all of the transformational factors and the transactional factor of contingency reward. Coaching was negatively related to transactional factors of management-by-exception (active) and (passive).
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Chapter 1

Strong nursing leadership is needed to create and maintain a healthy and safe practice environment for both nurses and patients. Acute care hospitals are fundamentally complicated organizations where nurse leaders must answer to numerous stakeholders and meet performance goals across multiple levels of achievement such as quality, cost, and satisfaction. Furthermore, in a recent study of chief nursing officers, 62% of the nurse leaders indicated plans to retire, leave the profession, or change jobs within the next five years (Jones, Havens, & Thompson, 2009). This scenario of change requires an in-depth look at options for optimizing the development of highly skilled nurse leaders.

Transformational transactional leadership is identified as a compelling, persuasive leadership style that can be used within today’s hospital and nursing environments to improve organizational outcomes (McGuire & Kennerly, 2006). Bass’ (1985) definition of the transformational leader suggests that healthcare leaders must be able to effectively model leader behaviors and guide the development of key leadership behaviors in others. Coaching is believed to encompass several key characteristics of transformational leadership that may offer an effective means for use in developing and/or expanding the transformational leader’s skills and in guiding leader development of followers (Humphreys & Einstein, 2003; Kowalski & Casper, 2007). The link between coaching and leader behaviors has been studied in non-healthcare organizations, but little is known about the use of coaching behaviors by healthcare leaders.

The assertion that strong nursing leadership is needed to create a healthier and safer practice environment for both nurses and patients is well corroborated in the literature (de Casterle, Willemse, & Verschueren, 2008; Failla & Stichler, 2008; McClure, Poulin, Sovie, & Wandelt, 2002; Page, 2004). The healthcare industry in general, and nursing specifically, faces
many challenges. Consumers are demanding expert care with public reporting of quality indicators. Populations are aging and increasing in size. Cost controls, along with regulatory influences and adherence to rigorous business principles, are impacting how care is provided (Casida & Pinto-Zipp, 2008; McAlearney, 2006; O'Neil, Morjikian, Cherner, Hirschkorn, & West, 2008). Paralleled with the continuing shortage of staff nurses is a proportionate shortage of nurse leaders. A multiphase study conducted by the American Organization of Nurse Executives (AONE) found that more than 60% of chief nursing officers planned to make a job change in the next five years, with slightly more than one-quarter planning to retire (Jones et al., 2009). Hader (2010) conducted a survey of over 1,500 nurse leaders in the United States, Canada, China, Saudi Arabia, and New Zealand. Forty-six percent of the respondents were 51 years of age or older. Half of this age group did not intend to be working in their current position within five years.

The above statistics suggest that changes in the current nursing leadership are forthcoming, creating an opportunity to mold a new generation of effective leaders. Herrin and Spears (2007) suggest that it is critical for nurse leaders to have the competencies to develop relationships with followers in order to retain them and improve patient care outcomes. What is less clear is how to develop and implement competencies that will result in strong nursing leadership.

Over the last 25 years, nurse researchers and practitioners have consistently identified transformational leadership as the most effective approach to address the challenges of the healthcare environment (de Casterle et al., 2008; Dunham & Klafehn, 1990; Leach, 2005; Page, 2004; Thyer, 2003). Transformational leadership has been associated with increased job satisfaction and intention to stay (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; Failla &
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Stichler, 2008; Upenieks, 2003), organizational commitment (Leach, 2005; McGuire & Kennerly, 2006), and improved patient outcomes (Aiken et al., 2002; McNeese-Smith, 1999; Wong & Cummings, 2007).

The Theory of Transformational and Transactional Leadership (Bass, 1985) provided the framework for this research. In the literature, transformational leadership is often treated as a singular approach or style of leadership (House, 1977; Kouzes & Posner, 2003; Page, 2004). Bass and associates (Avolio, 1999; Bass, 1985, 1990a, 1990b) depict transactional and transformational leadership as conceptually independent of one another, but on a continuum. Effective leaders are both transactional and transformational, moving between the two styles as situations warrant (Avolio, 1999). Transactional leaders concentrate on the cost-benefit and economic exchange, meeting the follower’s material and psychological needs in return for behavior or services provided by the follower. The leader can help the follower gain self-confidence and motivation by clarifying roles and expectations. By way of contrast, the transformational leader builds on the transactional concepts and stimulates additional effort by elevating the follower’s confidence even higher through delegation and increasing the importance or value of an outcome.

The central premise of transformational leadership is the inspiration of followers through a shared vision that empowers and motivates, builds trust, and reflects mutual purpose and values. Transformational leaders inspire a follower to do more than the follower originally expected to do. Followers go beyond their own self-interest for the sake of others. The transformational leader seeks to awaken and satisfy higher order needs, such as achievement and self-actualization versus mere security and safety, and engage the complete person of the
follower. Followers grow and develop as a result of the transformational leader’s nurturing (Avolio, 1999; Bass, 1985, 1990a).

The theory of transformational transactional leadership assumes there is a relationship between the leadership style and the follower’s behavior. The leader pays special attention to the followers’ differences related to strengths and weaknesses and likes and dislikes. Learning opportunities are provided in a supportive climate based on the individual’s abilities and requirements. Effective two-way communication provides opportunity for listening and giving feedback. The leader is highly visible and interactions with the follower are personalized (Avolio, 1999; Bass, 1985, 1990a). Bass uses the concepts of coaching and mentoring to define the one-to-one interaction between leader and follower that takes place for the purposes of follower development and job satisfaction (Bass, 1990b, 1999; Bass & Avolio, 1989; Hater & Bass, 1988).

Transformational leadership reflects a management culture based on inclusion, involvement, and participation rather than a more traditional command, control, and compliance model (Bass & Avolio, 1997). The transformational leadership-type of paradigm calls for facilitative behaviors that focus on follower empowerment, learning, and development (Senge et al., 1999). Ellinger and colleagues (Ellinger, Ellinger, & Keller, 2003; Ellinger, Hamlin, & Beattie, 2006) label these behaviors coaching. Ellinger et al. (2003) state that coaching is conceptualized as “a form of facilitating learning to encourage growth and development…This conception of coaching from an empowering paradigm is considerably different from many of the control-dominated-prescriptive paradigms often associated with sports coaching” (p. 438).

Coaching by the leader with the follower is believed to encompass several key characteristics of transformational leadership. Individual attention, challenge to learn, and
continuous back and forth communication are aspects of both coaching and transformational leadership (Bass, 1985; Ellinger, Watkins, & Bostrom, 1999). In transformational transactional leadership, these elements are presented as components of individual consideration and to a lesser extent, intellectual stimulation. Although the relationship between coaching and leadership outside the sports arena are not well defined, leaders are believed to actively engage in coaching behaviors as a means of influencing follower behaviors. Coaching may be an effective means for use in developing and/or expanding the transformational leader’s skills and in guiding leader development of followers (Ellinger & Bostrom, 1999).

Acquisition of skills required for transformational transactional leadership necessitates education, experience, and personal growth (Murphy, 2005). In evaluating the results of a nurse leadership development project, de Casterle et al. (2008) stated, “Leadership development is not a single event, but an ongoing and interactive process between the leader and co-workers” (p. 757). This study looked at coaching as a process or developmental strategy for closing the gap between having knowledge of the components of transformational and transactional leadership and putting them into action as a catalyst of work performance, job satisfaction, work relationships, and organizational commitment.

Statement of the Problem

Nursing leadership continues to be a critical need in spite of growing concern and investment in education and training (Mackenzie, 2007). Transformational leadership is widely identified as the style best suited for environments such as healthcare that require change, development, initiative, and creativity in times of turbulence and uncertainty (Bass, 1985; McAlearney, 2006). Educational programs rooted in traditional management training, skill-based training, and job assignment may not be adequate for the implementation of transformational
leadership (McAlearney, 2006). A great deal of literature describes “what” the leadership is, but very little exists on “how” to achieve it (Mackenzie, 2007).

The process of coaching is believed to be able to assist nurse leaders to move from potential to actual behaviors of transformational leadership. A leader who seeks to provide individual consideration and intellectual stimulation towards followers can rely on coaching as an approach for closing the gap between knowledge of these components and how to put them into action as a catalyst of influence and creativity (Mackenzie, 2007). This facilitative view of coaching is different from the control-dominated prescriptive model. It is engaging in two-way conversation, encouraging personal interaction, and empowering followers to act. Ellinger and Bostrom (1999) suggest an empowerment paradigm in which “the coach encourages and motivates the employees to learn, help to surface and test assumptions, [and] to understand patterns and relationships among people organizations and events” (p. 754).

Significance of the Study

Nurse leadership is pivotal to the successful provision of care in today’s healthcare environment. The effectiveness of nursing leadership has been cited as an important factor in nurse satisfaction, building work relations, performance, and organizational commitment (Aiken et al., 2002; Heller et al., 2004). The current research looked at highly transformational and highly transactional leaders to understand how optimal nurse leaders perform. Previous research has not assessed an optimally effective transformational transactional leader; however, by using person-orientated research versus variable-orientated research (O’Shea, Foti, Hauenstein, & Bycio, 2009), individual levels of performance could be indentified. Equally important is the role played by nurse leaders to attract, develop, and retain tomorrow’s nurse leaders. The aging of the current nurse leaders and approaching departure of large numbers of experienced nurses within
the next 10 years creates a potential void of knowledge, skills, and labor (Bleich, Cleary, & Davis, 2009). The literature clearly supports transformational-style leadership for today’s nursing leader in implementing the overall role and developing relationships with followers.

In this context, Bass (1985, 1999) identified coaching as a way to provide individual consideration to followers with the goal of development, increased motivation, and job satisfaction. Leader as coach has been identified in human resource development literature as the approach needed to produce long-lasting learning, high levels of motivation, and improved employee performance (Ellinger, 2003). It is rare to find coaching discussed from this perspective in nursing literature. The exception is Heller et al. (2004), who believe the traditional rolls of authoritarian nurse leaders have been replaced by leaders as coaches. The authors acknowledge that educational preparation has not addressed the complex requirements of the practice setting, leaving nurse leaders unprepared to function effectively.

There is little empirical or theoretical research to support the role of leader as coach. Most literature is prescriptive in nature and does not offer descriptive insight. This research examined the relationship between transformational transactional leadership and coaching and the influence between the leader-follower coaching relationships and work-related outcomes of work performance, job satisfaction, work relationships, and organizational commitment. The findings of the study add new knowledge to the complex phenomenon of nursing leadership and offer unique insights into how to develop both nurse leaders and followers, thus enabling the achievement of successful leadership in a complex, chaotic, and challenging healthcare environment.
Theoretical Framework – Transactional and Transformational Leadership Theory

Transformational-charismatic leadership theory was introduced into the literature in the late 1970s (Bass, 1985; Burns, 1978; House, 1977). Prior to this, leadership scientists referred to the most effective leadership as transactional contingent reinforcement (Bass, Avolio, Jung, & Berson, 2003). Bass (1985) suggested that a paradigm shift was needed to understand how leaders influenced followers to move beyond their self-interests for the greater good of their organizations.

Explicitly related to Burns’ work, Bass (1985) presented a new model of Transactional and Transformational Leadership based on research in organizations within industry, education, and the military. Bass proposed that the components of transactional and transformational leadership exist as a continuum. Leaders often use a blend of the two types based on the circumstance of a particular situation. Transactional leadership is described by Bass (1985) as an exchange between leaders and followers. The leader induces performance by an exchange with the follower of rewards or punishment based on compliance. Bass defined transformational leadership as inspiring others to do more than was initially planned or considered achievable. Transformational leadership is an expansion of transactional leadership (Bass, 1990a). Bass recognized transactional leadership as an exchange of needs for services from followers, but goes further on a continuum of leadership to the transformational leader who seeks to arouse and satisfy higher needs of the follower, engaging the full person (Avolio, 1999; Bass, 1985, 1990b). The theory assumed there is a relationship between the manager’s leadership style and followers’ behavior. Bass defined the theory in terms of the leader’s effect on followers and the behaviors used to achieve the effects (1985).
The original theory included four transformational and two transactional factors. Bass and colleagues (Avolio, 1999; Avolio & Bass, 2002; Bass, 1990b) have further expanded the theory to its current form of Full-Range Leadership Theory. This represents three typologies of leadership behaviors. Nine single-order factors comprised of five transformational leadership factors, three transactional leadership factors, and one non-transactional laissez-faire leadership factor constitute the Full-Range Leadership Theory (Antonakis, Avolio, & Sivasubramaniam, 2003). The continuum of factors ranges from the highly avoidant to the highly inspirational and idealized.

The 9-factor model (idealized influence – attributed, idealized influence – behavior, inspirational motivation, intellectual stimulation, individual consideration, contingent reward, management-by-exception [active], management-by-exception [passive], and laissez-faire) has several benefits toward acquiring new knowledge about leadership. Bass and Avolio (1997) suggest that earlier two-factor models oversimplified conceptualization and measurements of leadership and did not represent the range needed to study leadership behavior. Bass believes multiple components are necessary to provide data for specific areas in order to better focus the individual development of leaders.

Leadership constitutes a complex interaction between leaders, followers, and the context in which each operates. An effective-style leadership reflects the consideration of these components (Bass, 1990a). Bass’ research deals with organizational leadership where authority, management, and leadership blend. Performance related to organizational goals is the test for transformational transactional leadership (Wren, 1995).

Figure 1 represents a visual representation created by the author of the relationship between transformational transactional leadership and coaching. The inner circle represents
transformational transactional leadership’s nine single order factors as stated above. These factors range from a lower order of passive, ineffective leadership (laissez faire) to a higher order of active, effective leadership (idealized influence – attributed). Leaders use all of the factors as appropriate to the situation, with the higher order ones being seen as most effective (Antonakis, Avolio, & Nagaraj, 2003). The next circle signifies coaching actions of the leader with the follower to encourage growth and improve performance. The third circle denotes the follower’s exposure to individual attention, challenge to learn, and opportunities for recognition. The outer circle corresponds to the impact of the leader-follower coaching relationship on the follower’s work outcomes. The arrows stand for the back and forth action and continuous communication in the relationship.

**Transformational Leadership**

The central premise of transformational leaders is the inspiration of followers through a shared vision that empowers and motivates, builds trust, and reflects mutual purpose and values of the leader and follower (Bass, 1985). Transformational leaders motivate others to do more than was originally expected, inducing followers to move beyond their own personal well-being, and work for the greater good of their organizations. Followers grow and develop as a result of the transformational leader’s nurturing and vision (Bass, 1985, 1995). Transformational leaders are proactive, anticipating future problems, needs, or changes. Followers are engaged in collective goals, commitment, and contribution beyond the original anticipation. Bass (1985) suggests that transformational leaders increase the follower’s scope of aspirations, alter the follower’s self-interest, and move focus from lower level needs, such as security, to higher level needs of affiliation and recognition. These results are accomplished using one or more of the five
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Figure 1

Leader Coaching Model

II_A = Idealized Influence – attributed; II_B = Idealized Influence – behavior; IM = Inspirational Motivation; IS = Intellectual Stimulation; IC = Individual Consideration; CR = Contingent Reward; MBEP = Management-by-Exception (passive); MBEA = Management-by-Exception (active); LF = Laissez-faire.
factors of transformational leadership defined by Bass and Avolio (2002): idealized influence – attributed, idealized influence – behavior, inspirational motivation, intellectual stimulation, and individual consideration. Transformational leadership is thought to mirror social values and occurs in times of stress and significant change. Leadership is challenged “to provide new solutions, stimulate rapid response, develop subordinates, and provide reasons for coping” (Bass 1985, p. 156).

**Idealized influence.** Leaders act as role models, walking the walk, expressing confidence in the mission of the organization, and demonstrating commitment to vision. Followers seek to emulate these behaviors. Leaders earn respect and trust by considering the needs of others over their own, sharing risk with followers, being constant rather than capricious, demonstrating high moral and ethical conduct, and avoiding the use of power for personal gain (Antonakis et al., 2003; Bass, 1985; Bass et al., 2003).

Avolio and Bass (2002) further differentiated two kinds of idealized influence: attributed and behavior. Charismatic socialized characteristics of the leader are related to idealized influence – attributed. This pertains to the view of the leader as confident and powerful, and the degree to which the leader is focused on higher-order ideals and ethics. Charismatic actions of the leader refers to idealized influence - behavior): actions that relate to values, beliefs, and a sense of mission (Antonakis et al., 2003).

**Inspirational motivation.** Leaders provide meaning and challenge by creating a strong sense of purpose for the follower’s work. Motivation and inspiration emerge within the follower. Team spirit, enthusiasm, and optimism are often created and followers exceed their own expectations. The leader aligns individual and organizational needs and gets the follower involved in envisioning an improved and desirable future state. The follower experiences an
emotional rather than an intellectual response (Avolio, 1999; Bass, 1985, 1990a; Bass et al., 2003).

**Intellectual stimulation.** The leader stimulates the follower’s efforts to be innovative and creative by questioning assumptions, reframing problems, and approaching old situations in new ways. Followers are included in addressing problems and finding solutions, thus developing their own abilities. Ridicule or public criticisms are not tolerated (Avolio, 1999; Bass, 1985; Bass et al., 2003).

**Individual consideration.** The leader pays special attention to the follower’s differences related to strengths and weaknesses, likes and dislikes. In a supportive climate, learning opportunities are provided, determined by the individual’s abilities and requirements. The leader is a good listener. Two-way communications is encouraged. Interaction with followers is personalized and the leader is highly visible. Bass and Avolio (Avolio, 1999; Bass, 1985, 1990a; Bass et al., 2003) use the concept of coaching or mentoring to define the one-to-one interaction between superordinate and subordinate with the goal of development and job satisfaction for the subordinate.

**Transactional Leadership**

Transactional leadership is an exchange process based on the achievement of agreed upon commitments. Leadership is focused on agreements and plans. Departures from established norms can be scrutinized and conditional rewards given (Bass et al., 2003). Bass (1985) distinguishes between levels of transactional leadership, suggesting a range of lower to higher degrees of transactions. Lower order is more common, consisting of concrete incentives such as money for hours worked. Higher order relies on the exchange of abstract rewards, such as recognition or respect (Bass, 1990b; Bass et al., 2003). Bass (1985) contends that transactional
contingent reward behaviors are the underpinnings for interaction between leaders and followers such as “specifying expectations, clarifying responsibilities, negotiating contracts, and providing recognition and rewards for achieving expected performance” (p. 215). Transactional leadership is expected in a well-organized, stable society.

**Contingent reward.** The leader gives followers clear expectations of role and task requirements. Rewards and recognition are given for the successful accomplishment of an assignment. Contracting with the follower has a more implicit than explicit nature. This type of transaction is reasonably effective in motivating followers to achieve (Avolio, 1999; Bass, 1985, 1990a; Goodwin, Wofford, & Whittington, 2001).

**Management-by-exception (active).** The leader aggressively observes for any deviance from established standards, seeking early warning signs of problems. The monitoring and control have a negative impact on creativity and innovation among followers. The contract between leader and follower is explicit and has a quid pro quo nature (Goodwin et al., 2001) tending to produce only moderate results (Antonakis et al., 2003).

**Management-by-exception (passive).** The leader takes action only when noncompliance occurs. Followers may see this as indifference, since the leader offers little in terms of direction or support to followers. The leader works toward the maintenance of the status quo. Problems are addressed when identified as impediments to normal functioning.

**Laissez-faire.** The leader offers neither direction nor support. The leader avoids decisions, relinquishes responsibility, and does not use authority. The result is conflicted followers unsure of their roles and responsibilities. This leadership represents an absence of transaction or exchange between the leader and follower (Bass, 1990a). This is by and large thought to be the most passive and ineffective mode of leadership (Antonakis et al., 2003).
Highly transformational and transactional leaders. There are very few incidents in the literature where leaders are defined as either transformational or transactional based on the Multifactor Leadership Questionnaire (MLQ). Additionally, leaders are rarely defined with specific criteria as high, medium, or low transactional or transformational leaders. In attempting to identify and compare transformational with transactional leaders and their effect on follower effort, Bass (1990b) studied 58 managers at an engineering firm with 228 of their followers. Using the MLQ, “four star” leaders were identified as those who placed in the top 25% of a leader factor score. “One star” leaders were those who scored in the bottom 25% on leadership factors. This same criterion was used in this research. Bass & Avolio (2004) published normative data for the MLQ (5X-Short). Their sample consisted of 3,755 leaders’ self ratings and 12,118 lower level ratings. The results of the nine factors were ranked by percentiles from 5th to 95th. The top 25th percentile scores of the five transformational and three transactional factors were used to define highly transformational and highly transactional leaders.

Organizational environment

Bass (1985) acknowledges that conditions in the external and internal environment of an organization, as well as the leader’s personality, result in circumstances that lead to whether transformational or transactional leadership will occur. Leadership development is centered on “the interaction of the leader within a social-organizational context” (Bass et al., 2003, p. 216). Emergence of leadership style will depend on the historical, social, economic, and cultural setting of the organization, as well as the overall operations of the organization and the tasks, supervisors, peers, and subordinates of the leader. Personality and values play a significant part in whether transformational or transactional leadership emerge in any given situation.
Bass (1985) categorizes organizations as organic or mechanical. Organic institutions have vague structure with uncertain goals but nurturing milieus. Members are knowledgeable and expected to think innovatively. Transformational leadership mirrors social values, appears in times of stress and significant change, and is likely to emerge in organic organizations. Transactional leadership is expected in mechanistic organizations where objectives and composition are apparent and unambiguous (Bass, 1990b, 1995).

**Individual personality.** Bass (1985) is emphatic that it is not possible to understand the transformational effort of the leader without knowing the leader’s values. Whether a leader will engage in coaching to develop the follower depends on how much and why the leader values the follower’s participation. Personalities differ by the needs and motivation of the leader. Bass (1985) gives an example stating, “Intellectually stimulating and inspiring transformational leaders call for personalities that are more active, self starting, and proactive. Transactional leaders can remain more reactive and less involved” (Bass, 1985, p. 174).

**Transformational Transactional Leader Conclusion**

Bass (1985) suggested that transactional leadership is limited to inducing performance through basic exchanges with followers. Transformational leadership describes how leaders could influence followers beyond their own self-promoting perspective to achieve more than was expected for themselves and their organization. “Transactional leadership, particularly contingent reward, provides a broad base for effective leadership, but a greater amount of effort, effectiveness, innovation, risk taking, and satisfaction can be achieved by transactional leadership if it is augmented by transformational leadership” (Avolio & Bass, 2002). Avolio (1999) and Bass (1990a) both state that all leaders will exhibit all of the factors at one time or
another. The key is to find the appropriate balance for the situation and organization. This study examined coaching’s influence on the effectiveness of leadership.

**Coaching**

Coaching has many of the behaviors that represent the characteristics of transformational leadership, especially, individual consideration and intellectual stimulation (Bass, 1986; Ellinger, Watkins, & Bostrom, 1999a). Coaching can be a key success factor to the leadership style. It is within this intimate coaching relationship that the leader identifies and supports the strengths, weakness, and needs of the follower. Two-way conversations offer valuable feedback as to how the leader is perceived by the follower and vice versa. Coaching has appeared in management literature for over 60 years, but minimal empirical research has been found that examines coaching. To date in nursing literature, coaching has been treated as a good idea. There have been some “thought papers” on why coaching matters, but no empirical research on how managers can build capabilities (Cadmus, 2006).

**Background**

Coaching as an attempt to develop followers first appeared in management literature in the 1950s (Evered & Selman, 1987). The approach was implemented as a master-apprentice type of affiliation. By the 1970s, the concept of athletics and sports coaching had moved into managerial literature and remained popular into the 1990s (Kilburg, 1996). The control-dominate-prescribe paradigm associated with sports coaching became less appropriate as organizations progressed toward a new paradigm of work environments just before the end of the 20th century (Ellinger & Bostrom, 1999; Ellinger et al., 1999).

In the early 21st century, organizations are operating in turbulent environments, experiencing demanding customers, periods of high uncertainty, and the need for acquisition and
dissemination of knowledge (Slater & Narver, 1995). A key success factor to sustained competition in these circumstances is knowledge-driven behavioral change (Senge, 1990). Slater and Narver (1995) suggest that, “Such complex organizations call for a complex style of leadership and a transformational or facilitative leader” (p. 69). Organizations are increasingly embracing an approach that is based on inclusion, involvement, and participation rather than the traditional command-and-control model (de Casterle et al., 2008; Ellinger et al., 2006; Failla & Stichler, 2008; O’Neil et al., 2008).

Coaching continues to be identified in the literature as a key ingredient to success in organizations that stress the development of high performing work environments, emphasize empowerment, and value and support learning and growing (Ellinger et al., 2003). Redshaw (2000) suggests coaching contributes to increased levels of motivation and improved employee performance in followers. This results in enhanced performance, working relationships, job satisfaction, and organizational commitment.

Coaching as a Concept

The new model of performance requires leaders to assume behaviors of encouragement, teaching, and facilitating followers to learn and develop within the work environment. Slater and Narver (1995) characterized the facilitative or transformational leader as a coach. This concept of coaching as a form of facilitative learning to encourage growth and development is supported by a number of scholars (Ellinger et al., 2003; Ellinger et al., 2006; Hamlin, Beattie, & Ellinger, 2007). According to Redshaw (2000), coaching and facilitative leadership are synonymous.

The terms coaching, counseling, and mentoring are used interchangeably in the literature, but for the purpose of this research, the terms will be differentiated. Counseling is usually a limited intervention to address an emotional state of an employee that is impacting job
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performance (Mink, Owen, & Mink, 1993). Mentoring is typically a longer-term interaction that is developmental and career oriented, but may take on other aspects of life (Mink et al., 1993). This is usually a voluntary, semi-structured, or informal dyad. Coaching, a personal development process, has become a very prevalent concept in popular, as well as professional literature (Ellinger, 2003). This is a formal, structured relationship with written goals and timelines. There are numerous types of coaching: professional, personal, life, executive, health, and sports, to name a few. In the present research, the coaching relationship of interest is between the leader and follower for the purpose of the follower’s growth and development within the organizational environment.

Bass and others (Antonakis et al., 2003; Bass, 1985, 1995, 1999; Hater & Bass, 1988; Humphreys & Einstein, 2003) make no distinction between coaching and mentoring, but use them interchangeably. Bass’ description of individual consideration and intellectual stimulation supports this definition of coaching: “Intellectual stimulation is displayed when the leader helps followers to become more innovative and creative. Individual consideration is displayed when leaders pay attention to the developmental needs of followers and support and coach the development of their followers” (Bass, 1999 p. 11). It is this description that drove the current study.

Purpose of the Study

The purpose of this exploratory study was to examine the use of coaching by transformational transactional nurse leaders in healthcare organizations. The specific aim was to ascertain whether highly transformational leaders were more likely than highly transactional leaders to engage in coaching behaviors. Previous research had not assessed an optimally effective transformational transactional leader. This study accomplished this through a person-
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The study examined how leaders’ and followers’ perceptions of transformational and transactional nurse leaders vary in relation to perception of frequency with which coaching behaviors are used by the leader. The relationship between follower perception of coaching and perceived work-related outcomes were explored. The research added knowledge to the complex phenomenon of nursing leadership by examining the leadership style of nurse leaders in the largest acute care hospitals in the United States, empirically measuring the presence of coaching behaviors, and perception of followers regarding the impact the coaching relationship with their leader had on their work outcomes.

**Research Questions**

The following research questions were examined in this study:

1) Is a leader who perceives herself or himself as highly transformational more likely to exercise coaching behaviors with a follower than a leader who-perceives herself or himself as highly transactional?

2) How do the followers’ perceptions of transformational and transactional nurse leaders vary in relationship to their perceptions of frequency with which coaching behaviors are used by the leaders?

3) Do followers who rate their nurse leaders as highly transformational as contrasted with highly transactional perceive that the leader-follower coaching relationship has positively impacted their work performance, job satisfaction, work relationships, and organizational commitment?

4) When nurse leaders perceive themselves as highly transformational or highly transactional, do their followers perceive that the leader-follower coaching relationship
has positively impacted their work performance, job satisfaction, work relationships, and organizational commitment?

**Definition of Terms**

For the purpose of this research, the following definitions apply:

**Coaching**: A developmental approach between leader and follower (superordinate and subordinate) to encourage growth and improve and enhance follower performance, job satisfaction, commitment, and motivation in an organizational environment (Ellinger et al., 2003).

**Coaching relationship**: Cooperative human interaction between leader and follower in which both agree to share responsibility for the development of the follower related to the organizational environment.

**Education**: The undergraduate or graduate(s) received from among: Nursing Diploma, Associate Degree in nursing, Associate Degree in other field, Baccalaureate Degree in nursing, Baccalaureate Degree in other field, Master’s Degree in nursing, Master’s degree in other field, Doctoral Degree in nursing, Doctoral Degree in other field.

**Job satisfaction**: The feelings a follower has about the job in general. A global concept encompassing specific facets related to pay, work, supervision, opportunities, conditions, and organizational practices.

**Nurse follower**: A registered nurse who is a direct report of nurse leader and has committed to a cooperative work relationship with the nurse leader that has led to shared responsibility for the nurse follower’s development in the organizational environment.

**Nurse leader**: Individual serving in the highest ranking administrative role in the healthcare organization who has entered into a cooperative work relationship with three or more nurse
followers that has led to shared responsibility for the nurse followers’ development in the
organizational environment.

**Organizational commitment**: “The strength of an individual’s identification with and
involvement in a particular organization” (Porter, Steers, Mowday, & Boulian, 1974, p. 604);
characterized by a strong belief in the goals and values of the organization, a willingness to work
hard for the organization, and a desire to maintain membership in the organization.

**Transactional leadership**: An exchange process in which the leader induces performance with
follower for rewards or punishment based on fulfillment of objectives and outcomes (Bass,
1990a).

**Transformational leadership**: Inspiring others to do more than was initially planned or considered
achievable (Bass, 1990a).

**Work performance**: Work accomplished in relation to the amount and value expected from each
employee.

**Work relationships**: The interactive connection between leaders, coworkers, fellow employees,
and physician/surgeons, who have dealings with each other within the employment environment.

**Assumptions**

Several assumptions underlie the concept of coaching as a facilitator of learning
behavior. The dyad of the coaching relationship is the leader-follower; a human relationship that
requires cooperation between the two participants who agree to share the responsibility of
achieving the decided upon goals. Some level of trust and respect is assumed between the leader
and follower (Hunt & Weintraub, 2004).

The leader has the acknowledged potential to use control or power over the follower as a
result of job position. However, coaching, as described here, attempts to assist learning by
empowering behaviors of encouragement, delegation, and facilitation. The concept of coaching between leader and follower is best suited for organizations that practice and support learning and development. Success related to coaching is directly influenced by alignment of cultures, reward systems, and expectations within the organization. Finally, coaching has a positive impact on both individual and organizational performance (Ellinger et al., 2006, Ellinger et al., 1999).

**Conclusion**

Healthcare organizations are operating in turbulent environments with demanding consumers, periods of high uncertainty, and a need for acquisition and dissemination of knowledge. Complex environments such as these require a complex style of leadership and a transformational or facilitative leader (Slater & Narver, 1995). Transformational transactional leadership has been identified in nursing literature as the most effective style for the current situation.

The theory of Transformational and Transactional Leadership (Bass & Avolio, 2004) identifies nine factors: laissez-faire, management-by-exception (passive), management-by-exception (active), contingent rewards, individualized consideration, intellectual stimulation, inspirational motivation, idealized influence – behavior, and idealized influence – attributed. Leaders utilize the full range of behaviors, depending on the situation being addressed. Research supports the premise that those leaders who are able to use the transformational factors consistently achieve higher levels of performance from followers.

Transformational leadership is a high-level form of leadership that calls for education, experience, self understanding, and vision within the leader. This leadership paradigm calls for empowerment of the follower, delegation of responsibilities, and effective interpersonal
relations. Studies of leaders’ perceptions of their leadership style indicate the existence of a gap between leaders vision of themselves as transformational and their followers’ perceptions (McGuire & Kennerly, 2006).

Coaching between leader and follower for the purpose of learning is believed to support a leadership style of empowering employees to exceed prior levels of performance (Ellinger et al., 2003; Hamlin, Ellinger, & Beattie, 2006). This study explores coaching as a process or developmental strategy for closing the gap between the knowledge and the practice of transformational transactional leadership components. Coaching focuses the leader on one-to-one interaction with followers. The desired interaction facilitates and empowers through feedback, goal setting, delegation, and communication with the leader. The literature suggests that coaching can contribute to higher levels of follower performance, working relationships, job satisfaction, and organizational commitment.
Chapter 2 – Literature Review

This chapter presents a literature review of transformational transactional leadership, coaching, work performance, job satisfaction, work relationships, and organizational commitment. Relevant research literature is summarized as a foundation to this study.

**Transactional Transformational Leadership**

The terms *transactional* and *transformational leadership* were first introduced by Burns (1978), a political writer, in his Pulitzer Prize winning book, *Leadership*. Prior to this, most of the attention in leadership literature was on the exchange relationships of the leader and follower (Humphreys & Einstein, 2003). Subsequently, a number of scholars of varying disciplines offered theories or models of transformational leadership (Bass, 1985; Bennis & Nanus, 1985; Kouzes & Posner, 1987). Bass (1985) stated that the existing theories of leadership had focused on follower goals and role clarification, and the ways leaders rewarded follower behavior. This “transaction” was limited to influencing basic exchange. Bass (1985) proposed that a shift in thinking was needed to understand how to achieve follower performance beyond ordinary limits. Bass suggested that followers’ attitudes, beliefs, motives, and confidence need to be “transformed” to a higher level of arousal and maturity.

The model of Transactional Transformational Leadership from Bass (1985) was built on theories of motivation. Additionally, Bass was significantly influenced by the thinking related to transformational leadership by Bennis, Yukl, House, and Zaleznik (Bass, 1985). The transformational transactional leadership theory offered several unique aspects to the thinking of the time. Transactional and transformational styles of leadership are not mutually exclusive, but function on a continuum. Transformational leadership adds to the contribution of transactional leadership’s effectiveness, but does not substitute for it. A successful leader uses both as
circumstances require (Bass, 1990b, 1999). Transformational leaders can be directive as well as participative, authoritarian or democratic, blending their approach with mature moral development (Bass, 1995) as exemplified by Nelson Mandela. Mandela was both directive and transformational when instructing followers to forget the past (Bass, 1999). Transformational leadership is found not only in world-class leaders or high level executives but also in ordinary places and within all levels of organizations (Bass, 1985).

Bass (1985) initially studied transformational transactional leadership by using Stogdill’s Leadership Behavior Description Questionnaire (Stogdill, 1963). This instrument supported the early testing of hypotheses related to the theory. The questionnaire subsequently became the Multifactor Leadership Questionnaire (MLQ) and has been continually revised over the past 20 years (Antonakis et al., 2003). Bass et al. (2003) argued that, after hundreds of studies, transformational leadership has repeatedly been found to be highly correlated with effectiveness and satisfaction of followers.

A significant accumulation of research also supports the relationship between transformational transactional leadership and performance (Avolio, Bass, & Jung, 1999; Bass, 1999; Howell & Avolio, 1993). Bass (1990b) compared transformational and transactional leaders on the willingness of followers to give extra effort to their jobs. Data were collected from 58 leaders and 228 followers in a large engineering firm using the MLQ. Bass found 75% to 82% of the high performing transformational leaders had followers who indicated extra effort was frequently given. In the low performing transformational leaders, only 22% to 24% of followers were as willing to make extra effort. Additionally, a meta analysis conducted by Lowe, Kroeck, and Sivasubramaniam (1996) supports the positive relationship between transformational leadership and performance.
The continued high level of interest in transformational transactional leadership may be reflective of the organization of environments. Bass (1985) contends that transformational leaders are more likely to “emerge in times of distress and rapid change” (p. 154). Bennis (2001) labels this approach to leadership as adaptive. Adaptive leadership is needed in rapidly changing environments as leaders work with followers to create and adopt innovative solutions to complex problems. During this adaptive process, followers develop the ability to take a leadership role with wider responsibilities. Bass et al. (2003) call this adaptive leadership transformational. Transformational leadership energizes groups to persist when conditions are unpredictable, difficult, and stressful. Bass (1999) noted that changes in the marketplace and workplace have required a different style of management. Steady pay, secure benefits, and lifetime employment are no longer assumptions of this environment. In contrast to a supervisor-subordinates relationship, a team approach working with colleagues offers autonomy and challenging work. Transformational leadership is needed to be effective in this environment.

**Transactional Transformational Leadership in Nursing**

Transformational leadership is believed to play a critical role in accomplishing changes required in the healthcare environment. Leadership is identified as the precursor to achieving patient safety, successful change initiatives, and competitive cost positions after a change initiative (Page, 2004). Over the past 25 years, transformational leadership has been consistently identified as an effective approach to addressing the challenges of the healthcare environment (de Casterle et al., 2008; Dunham & Klafehn, 1990; Leach, 2005; Thyer, 2003). In addition, transformational leadership has been associated with increased job satisfaction and intention to stay (Aiken, Clarke, & Sloane, 2000; Dunham-Taylor, 2000; Failla & Stichler, 2008; Upenieks, 2003), organizational commitment (Leach, 2005; McGuire & Kennerly, 2006), and improved
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Failla and Stichler (2008), in an exploratory study of staff nurses’ job satisfaction and perception of managers’ transformational leadership style, found a significant and moderate association between job satisfaction and transformational leadership, $r = 0.348, p = .002$.

Weberg (2010) conducted an evidence review to answer the question, “In healthcare organizations, how does transformational leadership influence staff satisfaction and job burnout?” (p. 247). Seven articles meet the inclusion criteria and were determined to be valid, reliable, and applicable for final evaluation and synthesis. Transformational leadership was associated with increased staff satisfaction while other leadership approaches were associated with decreased satisfaction. The author concluded, “Consistently across variables and studies, transformational leadership decreased factors that lead to higher burn-out and job satisfaction in the healthcare setting” (Weberg, 2010, p. 256).

Casida and Pinto-Zipp (2008) used a descriptive exploratory correlation design to examine nurse leadership styles and organizational culture. Organizational culture was defined as a construct influencing organizational performance as seen in the balance of the dynamics of flexibility and stability within the environment. This study used a convenience sample of 37 nurse managers and 278 staff registered nurses from four acute care hospitals in a large Eastern United States health system. The theoretical framework of Bass’ Full Range Leadership Model and Denison’s Organizational Culture Model were used. The psychometric properties reported included Cronbach’s alphas of .87 to .92 for the four culture traits and a comparison of fit index of .99, supporting good construct validity. Measurement tools were the MLQ and Denison’s Organizational Cultural Survey. Correlation analyses showed that statistically significant correlations existed between leadership and organizational cultural variables. Transformational
leadership showed a positive, moderately strong correlation with organizational culture, \( r = 0.60 \), \( p < 0.001 \), while transactional leadership showed a positive, but little or weak correlation with organizational culture, \( r = 0.16 \), \( p = 0.006 \).

Seeking to expand the knowledge of organizational commitment in an environment of rapid and dramatic organizational change, Leach (2005) investigated the relationship between nurse executive leadership and organizational commitment among nurses in acute care hospitals. Sixty-four nurse executives participated with 148 nurse managers who reported to the nurse executives and 161 staff who reported to the nurse managers within the research population. A statistically significant negative relationship was found between nurse executive transformational leadership, \( r = -0.24 \), \( p < .05 \), and organizational commitment among registered nurses (RNs). In addition, a statistically significant negative relationship between nurse executive conventional leadership, \( r = -0.31 \), \( p < .01 \), and RN alienative organizational commitment was also demonstrated. No relationship was found between nurse management’s organizational commitment and RN’s organizational commitment. The results of this work support the conclusion that nurse executive leadership has an effect on the degree of commitment experienced by staff nurses in health care organizations.

McGuire and Kennerly (2006) examined nurse managers’ leadership style and commitment of staff nurses. Significant correlation was found ranging from \( r = 0.39 \) to \( 0.20 \), \( p < 0.01 \), between the staff nurses’ scores on the MLQ (5X-Short) and their scores on the Organizational Commitment Questionnaire developed by Porter and Smith (1989). The findings of this study are consistent with Leach’s (2005), but advance the knowledge to include transformational nurse managers as promoting a higher sense of commitment in their followers.
Magnet status is a designation awarded by the American Nurses’ Credentialing Center (ANCC), an affiliate of the American Nurses Association, to hospitals that demonstrate rigorous standards defining the highest quality of nursing practice. Magnet nurse leaders consider their leadership style to be transformational rather than transactional. In a review of magnet literature, Gleason-Scott, Sochalski, and Aiken (1999) identified the characteristics of the leadership style of nurse leaders. The authors found the following attributes were reflective of transformational leadership: visionary, motivational, enthusiastic, supportive, knowledgeable, communicative, respected, guided by high standards and values, and facilitator of development of followers. Upenieks (2003) used a multi-method research design to examine the interrelationships of nursing leadership and nursing job satisfaction in magnet ($n=144$) and non-magnet ($n=161$) hospitals. The results showed higher levels of nurse job satisfaction at magnet hospitals as measured by the Nurse Work Inventory: autonomy, $t = 7.28, p = .031$; control, $t = 8.16, p = .031$; self governance, $t = 6.43, p = .001$; and new programs, $t = 6.30, p = .01$. Upenieks’ findings showed that magnet leaders have more transformational than transactional leadership characteristics as identified by their staff description of charismatic, visionary, and loyal. The nurse leaders were also depicted as encouraging autonomy and critical thinking, as well as valuing the individual’s contribution to the facility. Nurse leaders were seen as infusing high values into nursing that transcended the technical aspects of the job.

**Coaching in Leadership**

Coaching as a part of leader and follower development has gained considerable attention in the last 25 years. Recent literature defines coaching in varying ways. Forunies (1987) describes coaching as a practice for enhancing work performance. Others identify it as a daily hands-on method for supporting followers to recognize opportunities for improvement (Orth,
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Wilkinson, & Benfari, 1987; Popper & Lapshitz, 1992). Coaching is characterized as an empowering process that encourages followers to exceed previous performance (Burdett, 1998; Evered & Selman, 1987; Hargrove, 1995). Coaching is a relationship in which learning, direction, encouragement, and verification are practiced (Redshaw, 2000).

Coaches may be categorized as external, internal, or managerial. Those external to the organization, or external consultants, are usually characterized by the market segment in which each chooses to operate (e.g. executive, business, workplace, and life coaches) (Hamlin, 2007). Executive coaching is the most rapidly growing intervention in management development, especially in large organizations (Ellinger, Hamlin, & Beattie, 2008). The coaching business in the United States alone has grown to a $1 billion a year industry.

Internal coaching is considered a core competency of human resource development and may be provided by training and development experts as well as organizational development professionals or other human resource development specialists. Managerial coaching features the manager as coach. This is the facilitation of learning between the supervisor and subordinate within an organization (Ellinger & Bostrom, 1999).

Manager as coach calls for facilitative behavior that focuses on follower empowerment, learning, and development. Bianco-Mathis, Nabors, and Roman (2002) state, “The most powerful leaders are those who embrace coaching as a way of being” and “align their beliefs [about coaching] with action, communicate honestly, focus on the future, and relate to others in an open and authentic manner” (p. 1). Although there is increasing awareness of the benefits of coaching in general, and managerial coaching in particular, there is little theoretical or empirical literature to support it (Ellinger, 2003).
Ellinger and Bostrom (1999) conducted a descriptive qualitative study using critical incident technique and semi-structured interviews to identify what types of behaviors are exhibited by excellent learning coaches. The sample population was selected from a case book published by the American Society for Training and Development. The organizations in the book were described as ones that are “intentionally experimenting with innovative practices to create learning organizations” (Ellinger & Bostrom, 1999, p. 775). Four organizations took part in the study. Each organization recommended supervisors who were perceived as excellent facilitators of learning. Twelve managers were recommended in total. All agreed to participate.

In-depth interviews were conducted, taped, and transcribed verbatim. Managers were asked to describe at least four incidents where coaching was used to help their respective employees to learn. Content analysis was then conducted. To ensure external consistency, participants were asked to review their transcripts for accuracy. Thirteen behavior sets emerged that provide specific descriptions of the types of behaviors that leaders enact when attempting to coach (Ellinger & Bostrom, 1999, p 759)

1. Holding back – not providing the answers
2. Question framing to encourage employees to think through issues
3. Transferring ownership to employees
4. Being a resource – removing obstacles
5. Creating and promoting a learning environment
6. Broadening employees’ perspectives – getting them to see things differently
7. Stepping into others to shift perspectives
8. Using analogies, scenarios, and examples
9. Setting and communicating expectations fitting into big picture
10. Working it out together – talking it through
11. Engaging others to facilitate learning
12. Providing feedback to employees
13. Soliciting feedback from employees.

This study has several limitations. The sample was purposive and, therefore has restricted generalizability. The collection of critical incidents is adequate for exploratory study, but further
research is needed to develop the classifications. Finally, the incidents are self-reports of each manager’s perspective of behaviors used when facilitating and coaching. Followers may disagree.

Ellinger et al. (2003) conducted a survey to examine the linkage between a leader’s coaching behavior and follower performance. Three survey tools were used: a five-item employee job satisfaction survey, a six-item employee performance survey and two versions of a coaching survey: leader and follower. The authors created the Employee Perceptions of Supervisor/Line Manager Coaching Measure based on earlier work of Ellinger et al. (1999). The sample was a convenience sample of 18 distribution centers with 438 employees and 67 managers participating. The authors conclude that leadership coaching had a positive impact on performance of followers at the individual and organizational level. In a stepwise regression, the coefficient of determination, $R^2$, accounted for 44% of the variance of job satisfaction attributable to low to moderate levels of coaching.

Coaching in Nursing Leadership

The impact of coaching in nursing is largely opinion-based and lacks empirical study. No consistent definition of coaching is found in nursing literature. It is generally described as an approach for developing self-awareness, creating structure for accountability, giving advice and encouragement, and fostering job satisfaction and retention (Cadmus, 2006; Ellinger et al., 2003; Mackenzie, 2007; McNally & Lukens, 2006; Stedman & Nolan, 2007).

The coaching relationships identified in the literature fall into the categories of external coaches, such as executive coach, and internal coaches, such as nurse educator or human resource development consultant (Mackenzie, 2007; Stedman & Nolan, 2007). An early nursing coaching model has been proposed by Kowalski and Casper (2007), however, no theoretical or
empirical underpinnings were offered. The authors suggest that the development of specific tools and a framework for use of the tools are still needed. Additionally, coach and coachee behaviors are described. Recommendations from this work include the discouragement of a coaching relationship with a direct supervisor, although according to Khowaja, Merchant, and Hirani (2005), the idea of leader as coach has not been broached. Because of the lack of development and research on coaching in nursing, this study created an opportunity for insight and provided scholarly support for the phenomenon.

**Follower Outcomes**

Research supports the conclusion that leadership behaviors make a difference in the follower outcomes: work performance, job satisfaction, work relationships, and organizational commitment (Hayhurst, Saylor, & Stuenkel, 2005; McNeese-Smith, 1995; Watson, 2009). These outcomes have been tied to quality of care and followers’ willingness to stay (Hayhurst et al., 2005). These outcomes are substantially related and often studied together (Hayhurst et al., 2005; Loke, 2001; McNeese-Smith, 1995, 1999; Weberg, 2010). The nurse leader’s ability to positively impact these outcomes is of major interest.

**Work performance**

Work performance, sometimes called productivity, is the contribution toward an organizational end result in relation to resources consumed. Both quantitative measures, such as time and resources used to perform a service, and qualitative measures, such as goal attainment and quality of the service, contribute to a measurement of organizational productivity (McNeese-Smith, 1995).

The Institute of Medicine (Page, 2004) identified nursing workload as a vital component of healthy work environments. Khowaja et al. (2005) conducted a study using a descriptive
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qualitative research design with a convenience sample for five focus groups of RNs from acute care patient areas. The majority of the subjects gave “workload” as their main reason for job dissatisfaction. McNeese-Smith (1999) invited 19 managers and 221 of their followers to participate in a survey looking at leadership and nurse outcomes. Leader’s motivation for achievement was positively correlated with nurse productivity, $r = 0.15, p = 0.03$. Job satisfaction was also positively correlated with leader’s motivation, $r = 0.25, p < 0.001$.

MacPhee, Wardrop, and Campbell (2010) used participatory action research with the Structure-Process-Outcomes paradigm to study the linkage to nurse-nurse leader decisions made around workload. Using the participatory action research method creates an iterative process of data collection, analysis, and action and attempts to eliminate power differentiations between researchers and participants (and amongst participants) to understand and improve practices (Baum, MacDougall, & Smith, 2006). Teams engaged in shared decision making with their leader involving information, resources, and opportunities resulted in rapid gains and sustainable performance related to workload initiatives (MacPhee et al., 2010).

**Job Satisfaction**

Job satisfaction is defined as the feelings a follower has about the job in general. This is a global concept encompassing specific facets related to pay, work, supervision, opportunities, conditions, and organizational practices. A review of literature supports the hypothesis that follower’s perception of leader’s behavior affects levels of job satisfaction (McNeese-Smith, 1995). Using a questionnaire of eight instruments, Hall (2007) conducted a comparative study of three nursing units in a large hospital to investigate the relationship between supervisor support and occupation-related outcomes. Sixty-nine nurses participated reflecting an 85% participation
rate. The highest correlation was between supervisor support and job satisfaction, $r = 0.48$, $p < .001$.

A quantitative research study with 359 participants was conducted by Watson (2009) to examine the relationship between leadership style and motivational factors that influence job satisfaction. The Pearson correlation coefficient was used to analyze the direction and strength of the relationships. Statistically significant ($p \leq .01$) correlations were moderate and positive between transformational leadership behaviors and followers overall satisfaction with job, $r = .51$, work environment, $r = .56$, and commitment to the job, $r = .50$.

In research conducted by Duffield, Roche, Blay, and Stasa (2011), 2141 clinicians (72.8% RNs) were studied to assess the impact of nursing leadership on staff job satisfaction. Logistical regression was performed using the 12-item subscale *leadership* from the Nursing Work Index-Revised on the variables of job satisfaction, satisfaction with nursing, and intent to leave the current job. Six of the 12 items were found to be significantly related to job satisfaction. These items improved the likelihood of job satisfaction by 15% to 47%, with other items held fixed. The scale included highly visible senior nurse leader, an immediate supervisor who is a good leader, clear philosophy of nursing, and praise and recognition for a job well done. Effective leadership skills have been shown to enhance job satisfaction and promote staff nurse retention. However, there is limited evidence regarding the specific managerial leadership behaviors that contribute most to these outcomes (Kleinman, 2004).

**Work Relationships**

Work relationships are defined as the interaction among employees connected to work activities. These interactions influence behavior, thoughts, and feelings with members having some level of impact on each other. The concept has been studied in nursing as it relates to
staffing ratios, work design, physician relations, and conflict resolution (Aiken et al., 2002; McClure & Hinshaw, 2002; Upenieks, 2003; Wolf et al., 1994).

Almost, Doran, Hall, and Laschinger (2010) used a non-experimental design with structural equation modeling to study intra-group conflict among nurses and subsequent conflict management style, job stress, and job satisfaction. In a random sampling of 227 acute care nurses, the authors found conflict has a direct negative effect on job satisfaction. A significant partial mediation effect between management style and job satisfaction, \( z = -2.54, p = .01 \), was found.

Further examination of work relationships by Hayhurst et al. (2005) found that in contrast with nurses who anticipated leaving within the next six months, nurses who intended to stay in their position reported modestly high perceptions of friendliness and support from coworkers, \( t = 0.5, p = .58 \); higher perception of autonomy, \( t = 0.6, p = .58 \), and a lower perception of work pressure, \( t = 1.2, p = .23 \). Analysis of the data, however, did not reach statistical significance. MacPhee et al. (2010) found that positive work relationships between team members and their leader enhanced work outcomes with the leader’s style making a significant difference.

**Organizational Commitment**

Organizational commitment involves an intent to stay in the organization, work hard, and promote the goals and mission of the organization (Mowday, Steers, & Porter, 1997). This definition has been used by several nurse researchers (McNeese, 1995; McGuire & Kennerly, 2006). Repeated use supports accumulation of nursing knowledge related to this topic.

Laschinger, Finegan, and Wilk (2009) created and tested a multilevel model connecting leader-member exchange quality and structural empowerment to nurses’ psychological empowerment and organizational commitment at individual and unit levels. The multilevel path
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analysis revealed significant findings. At the unit level of analysis, the model leader-member exchange quality had a significant direct effect on structural empowerment, $\beta = .292$, which had a significant positive influence on organizational commitment, $\beta = .392$.

In a qualitative study from McNeese-Smith and Nazarey (2001), semi-structured interviews were conducted with 28 staff RNs to examine the participant’s views of their organizational commitment. Nine factors were identified as contributing to organizational commitment: personal factors, opportunities for learning, job satisfaction, plan for retirement, monetary benefits, patient care, coworkers, cultural factors, and job security. The presence of these factors supported positive organizational commitment, their absence promoted negative organizational commitment. McNeese (1999) identified a positive relationship between the leader’s motivation and nurses’ commitment to the organization, $r = 0.25, p < 0.001$.

Work performance, job satisfaction, work relationships, and organizational commitment are highly correlated and, as stated earlier, are often studied together. Watson (2009) examined the relationship between leadership behaviors and motivational factors that influence job satisfaction of medical imaging staff in acute care facilities. A convenience sample of 359 medical imaging staff completed a survey on their supervisors' leadership behaviors and the intrinsic and extrinsic motivating factors that influence job satisfaction and organizational commitment. This study indicates that there are strong, positive relationships between supervisors' transformational, $r = .76$, and contingent reward behaviors, $r = .78$, and overall staff job satisfaction. The behaviors with the strongest relationship to intrinsic esteem motivators were individualized consideration and contingent rewards.

employee outcomes of work performance, organizational commitment, and job satisfaction for patterns. Two hospital settings were utilized. Group A consisted of 41 leaders and 471 followers with a 77% participation rate. Group B consisted of 19 leaders and 221 followers with a 77% participation rate. Group A showed statistically significant positive correlation between the total leadership score and productivity, \( r = 23, p < 0.001 \); job satisfaction, \( r = 28, p < 0.001 \); and organizational commitment, \( r = 35, p < 0.001 \). Similar significant results were seen with Group B at somewhat higher correlation: productivity, \( r = 31, p < 0.001 \); job satisfaction, \( r = 43, p < 0.001 \); and organizational commitment, \( r = 48, p < 0.001 \). This study was replicated by Loke (2001) and the results demonstrated a positive statistically significant correlation between the composite of leadership behaviors and the outcomes of productivity, \( r = .19, p \leq .01 \); job satisfaction, \( r = .44, p \leq .01 \); and organizational commitment, \( r = .29, p \leq .01 \), with the composite of leadership behaviors.

**Conclusion**

A large portion of contemporary leadership literature and research has focused on transformational leadership and its effects on follower motivation and performance. From early studies, transformational leadership was positively correlated with the follower’s perception of leader effectiveness, the amount of effort followers are willing to extend for the leader, follower satisfaction with the leader, and follower performance (Hater & Bass, 1988). Twenty years later transformational-transactional leadership is described as an empowering theory that can improve organizational outcomes (Antonakis et al., 2003). Since the early 1990s, transformational leadership has appeared in nursing literature as a leadership style appropriate for the discipline (Wolf et al., 1994). Such support has grown stronger as the healthcare delivery environment has
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become increasingly complex, turbulent, and constantly changing (Casida & Pinto-Zipp, 2008; de Casterle et al., 2008; Failla & Stichler, 2008).

Contemporary leadership literature has also given considerable attention to the second construct: coaching. Little is understood about it from a theoretical or empirical perspective. However, a growing body of expert opinion suggests that coaching is an essential activity for leaders (Ellinger et al., 2008). Nursing literature supports this suggestion, but is vague on the definitions, characteristics, and relationships of coaching.

How leadership impacts organizational outcomes is an important measurement of effectiveness. Employee’s perceptions of work performance, job satisfaction, work relationships, and organizational commitment are outcomes that offer perspective on effectiveness of leadership behaviors. Additional insights into leader and follower development are anticipated from the examination of the dynamic interaction that results when leaders engage in coaching behaviors and a leader-follower coaching relationship is formed.
Chapter 3 – Methodology

Research Design

The research design was a correlational, non-experimental design utilizing a cross-sectional survey methodology with an email questionnaire approach. The purpose of the design was to describe the nurse leaders’ and nurse followers’ perceptions of leadership and coaching behaviors. Nurse follower’s perceptions of the coaching relationship were also explored in relation to the impact on work performance, job satisfaction, work relationships, and organizational commitment.

Sample Method

The sample population sought for this research was categorized as rare. A rare population is defined as having two characteristics: no existing list from which a sample can be drawn and special sampling techniques are required (Heckathorn, 1997). Rare populations are often difficult to locate and expensive to contact (Sudman & Kalton, 1986). However, researchers caution against substituting ad hoc convenience samples for rare samples, stating, “[a]t hoc convenience sample] are inadequate for making careful estimates about special populations” (Sudman, Sirken, & Cowan, 1988, p. 991). Probability sampling was used. The sample sought for this research was the most senior nurse leaders and their direct reports from the largest acute care hospitals in the United States.

No single centralized list of senior nurse leaders in healthcare organizations within the United States exists. A list of hospitals was ascertained for healthcare organizations. The sampling frame was obtained from The American Hospital Association (AHA) 2009 survey list. The AHA is a national organization that acts for and serves all types of hospitals, health care networks, and their patients and communities in the United States.
Leadership and Coaching Behaviors. The association conducts an annual process to assemble a list of all acute care hospitals and other healthcare providers. The database contains nearly 6,000 hospitals. Membership in AHA is not required to be on the list. Information from complementary data sources are merged with the AHA Annual Survey Database including: Medicare Provider Number, Metropolitan Statistical Area, Federal Information Processing Standards Country Codes and other geographical codes, and approval and accreditation codes from 16 different health care organizations including the Joint Commission on Accreditation of Healthcare Organizations, AHA, and Association of American Medical Colleges. The inclusion of the Medicare Provider Number allows the AHA Annual Survey Database to be linked with federal data for more thorough analysis. AHA Annual Survey database is used by a spectrum of organizations conducting research, market assessments, benchmarking, and strategic planning (D. Culbertson, personal communication, January 3, 2011). The sampling requested was defined as all community hospitals of 300 or more beds. Community hospitals were defined by the AHA (2009) as:

…all nonfederal, short-term general, and special hospitals whose facilities and services are available to the public. (Special hospitals include obstetrics and gynecology; eye, ear, nose, and throat; rehabilitation; orthopedic; and other individually described specialty services.) Short-term general and special children’s hospitals are also considered to be community hospitals (p.283).

Size was defined because it is an important variable of organizations and adds a level of consistency to the sample. Three hundred or more beds represent the largest 12% of acute care hospitals in the United States. Large organizations share several characteristics. Generally speaking, large organizations are formalized with rules, procedures, and written documents that
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define the rights and duties of employees. The organizations are usually centralized with levels
of hierarchy for decision making (Damanpour, 1992). The large size requires standardization and
mechanistic systems for achieving results and the complexity of size results in increased
numbers of functional specialties that perform sophisticated functions with intricate outcomes
(Klatzky, 1970). According to Damanpour (1992), large organizations have more resources that
can be used for research, technology, and building.

The final list purchased from the AHA contained 794 organizations which met the
qualifications of acute care, short term facility of 300 or more inpatient beds open to the public.
The variables found in the list from the AHA related to organizations were academic, teaching,
public, private, for-profit, not-for profit, urban, suburban, and rural hospitals located in the 48
contiguous states. To obtain a probability sample, the organizations were consecutively ordered.
A table of random numbers was used to draw the initial sample of 300 healthcare organizations.
This method is not subject to any biases or personal preferences (Bickman & Rog, 1998;
Creswell, 2003). The organizations were contacted directly to obtain the name and title of their
chief nurse leader. The final sample was composed of the highest ranking nurse leader (leaders)
in the identified hospitals and the direct nurse reports (followers) of the nurse leaders’ who
volunteered to take part. Participants were limited to those who had been in their positions for at
least one year.

The nurse leader’s direct reports, will for the purposes of this work, be referred to as the
followers. Participating nurse leaders were asked to submit to the researcher by email the email
addresses of all the nurses for whom each had responsibility, reported directly to them, and had
been in their position for at least one year. These positions were referred to by varying titles
within organizations such as Director, Associate Director, Assistant Director, Clinical
Director/Coordinator, Unit Manager, Vice President, Associate Vice President, and Assistant Vice President. The researcher made direct contact through email with the followers requesting their participation.

Sample size calculations were based on the ability to detect a minimum to medium effect size (0.35 - 0.5) in average coaching behaviors among subjects. It was expected that the number of transformational leaders would be four times the number of transactional leaders. This proportion was applied to determine the required number of leader subjects. Group sample sizes of 80 and 20 achieve 80% power to detect a difference of 0.05 between the null hypothesis and the alternative hypothesis.

Over sampling with surveys or questionnaires is suggested to account for lost mail and potential subjects who decline participation, increasing the sample size by 40% to 50% (Bartlett, Kotrlik, & Higgins, 2001). The desired sample size for this research was 200 leaders and their nurse followers. The researcher understood it is often not possible to achieve this with a rare sample. Sampling using random selection of nurse leaders and followers, continued until all perspective participants had been contacted.

**Informed Consent/Ethical Considerations**

The research proposal was submitted to the University of Cincinnati Institutional Review Board – Social and Sciences (UC IRB-S) for review and approval prior to the collection of data. Additionally, in two cases participating hospitals required approval from their respective Institutional Review Boards (IRB).

Participation in the study was completely voluntary and participants were informed that each could discontinue participation at any time during the survey. Each participant received a written communication (Appendices A and B) explaining the research, procedures, and risks and benefits of involvement in the research. A separate form for Informed Consent was not used. The
following statement, included on the demographic questionnaire, “By completing this 
questionnaire, I indicate my consent to participate in the study,” sufficed for consent for the 
researcher. Confidentiality was protected by reporting data in aggregate. Data collection was 
tracked using a numerical coding system to link participant data according to the organization 
and role. SurveyMonkey© software program was used to collect the data electronically. The 
program tracked survey responses and maintained the confidentiality of the data. All surveys and 
data were transmitted using Secure Sockets Layer operated by SurveyMonkey©, which is a 
cryptographic system that secures the connection used between the responder, researcher, and the 
server. Transfer was through the secure, encrypted, University of Cincinnati virtual private 
network. All surveys and data are stored on SurveyMonkey© servers kept at SunGard. Network 
security audits were performed weekly; hacker safe scans were performed daily. Any 
information regarding the codes was retained by the principal investigator in a locked file 
separated from survey data for the duration of the study and will be kept at the University of 
Cincinnati College of Nursing in a locked filing cabinet. After five years, the information will be 
destroyed by shredding.

Instrumentation

The nurse leaders were asked to complete a three-part questionnaire (Appendix C). The 
nurse leader questionnaire consisted of the following items: (a) a research-developed 
demographic sheet referencing the leader and organization; (b) MLQ (5X-Short) – self form 
(Bass & Avolio, 2004); and (c) Nurse Leader’s Perception of Coaching Behavior Measure. The 
nurse followers completed a four-part questionnaire (Appendix D) composed of: (a) a researcher-
developed demographic sheet referencing the follower and organization; (b) MLQ (5X-Short) – 
rater form (Bass & Avolio, 2004); (c) Nurse Follower’s Perception of Leader’s Coaching
Behavior Measure; and (d) the Coaching Impact Visual Analogue Survey developed by the researcher.

**Demographic Data Tools**

A demographic data collection tool was used to assess the basic characteristics of leaders and followers. The nurse leader demographic data collection tool gathered information regarding job title, age, gender, educational preparation, years of RN experience, time in current position, number of direct reports, position to whom the leader reports, and organizational data specific to number of organizational sites for which the leader is responsible. The nurse follower demographic data collection tool gathered information regarding job title, age, gender, educational preparation, years of RN experience, time in current position, number of direct reports, and number of units/departments reporting to them.

**Multifactor Leadership Questionnaire (5X-Short)**

Bass (1985) introduced the first version of the MLQ with the original publication of his Transformational Transactional Theory. Since its beginning, the MLQ has undergone several revisions. The MLQ (5X-Short) used in this study has 12 subscales: idealized influence – attributes, idealized influence – behavior, inspirational motivation, intellectual stimulation, individualized consideration, contingent reward, management-by-exception (active), management-by-exception (passive), laissez-faire, extra effort, effectiveness, and satisfaction (Bass, 1985). Laissez-faire, extra effort, effectiveness, and satisfaction subscales were not used in the study. For the purpose of this research, only the five transformational factors and three transformational factors were used.

This study used two forms of the MLQ (5X-Short), one for the leaders to evaluate themselves (self form), and the other for the followers to evaluate their leader (lower rater form).
The MLQ (5X-Short) has 45 items, 36 related to the 9 leadership factors and 9 that address 3 leadership outcomes. Each of the components was “measured by four highly inter-correlated items that are as low in correlation as possible with items of the other eight components” (Bass & Avolio, 2004, p. 13). The frequency of observed leader’s behaviors was measured on a 5-point scale (4 = frequently, if not always, 3 = fairly often, 2 = sometimes, 1 = once in a while, and 0 = not at all).

Antonakis et al. (2003) concluded from their study that the MLQ (5X-Short) “is a valid and reliable instrument that can adequately measure the nine components comprising the full range theory of leadership” (p. 286). The reliability of the MLQ (5X-Short) as measured by others rating of a specific leader is strong with a Cronbach’s alpha of > .90 (Bass & Avolio, 2004). Bass and Avolio used confirmatory factor analysis to examine the underlying structure of the model and reported a goodness-of-fit index of .92, which exceeds the minimal .90 recommendation (Bryant & Yarnold, 1998).

Scoring the instrument was the result of adding the numerical ratings of each of the questions in the eight subscales for transformational and transactional leadership and calculating the average response in each. A total score of the averages was used for total transformational and total transactional leadership. For this study, permission was purchased from Mind Garden, the copyright holder, for 600 on-line MLQ (5X-Short) surveys (Appendix E).

**Perceptions of Leader Coaching Behavior Measures**

Nurse Leader’s Perceptions of Coaching Behavior Measure and Nurse Follower’s Perception of Leader’s Coaching Behavior Measure were adapted from the Supervisor/Line Manager Coaching Behavior Measure and the Employee Perceptions of Supervisor/Manager Coaching Behavior Measure (Ellinger et al., 2003). The Supervisor/Line were based on a prior
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A qualitative critical incident study (Ellinger et al., 1999) and coaching literature (Ellinger et al., 2003). The supervisor and employee surveys each consisted of eight questions. The frequency of perceived supervisor’s behaviors was measured on a 7-point scale, ranging from 1 (almost never) to 7 (almost always). An overall score on the Coaching Behavior Measure was obtained by adding the numeric rating for each item and dividing by the number of items in the scale.

The psychometric properties provided by the authors supported internal consistency and one-dimensional, valid, and reliable characteristics. The principal component analysis for the two versions of the eight items of both tools ranged from principal component scores of .789 to .876, exceeding the suggested threshold of .60 (Bryant & Yarnold, 1998). The item-to-item total correlation ranged from .70 to .83 with only the item, “I use analogue, scenarios, and examples to help my employees learn,” lower (.39) than the suggested base line of .40 (Bryant & Yarnold, 1998). The Cronbach’s alpha for the tools were .94 for follower and .83 for leader.

A confirmatory factor analysis was conducted on the employee tool and resulted in a goodness-of-fit index of .93, an incremental fit index of .96, and a comparative fit index of .96 that supported the uni-dimensionality of the tools. The Cronbach’s alpha for the multi-item measure was .94. In analyses for internal consistency of the employee and supervisor measure, all variables exceeded the minimum .40 item-to-total-correlation with a Cronbach’s alpha for the multi-item measure of .87 (Ellinger et al., 2006).

Minimal changes were made to the wording of the Supervisor/Line survey to create the Nurse Leader’s Perceptions of Coaching Behavior Measure (See Appendix C) and Nurse Follower’s Perception of Leader’s Coaching Behavior Measure (See Appendix D). The words leader and follower replaced supervisor and employee, respectively, to reflect terms the more commonly used in professional workplaces. In the original version, Statement 7 seemed to
identify two separate behaviors: “I set expectations with my employees and communicate the importance of those expectations to the broader goals of the organization.” This item was divided into separate statements changing the total number of statements to nine on the coaching surveys used in this research. Thus, the score for the Coaching Behavior Measure ranged from 9 to 63.

Single-Item Visual Analogue Scale

The Visual Analogue Scale was a type of single-item measure in which the participant indicated a rating of a question on a questionnaire with the following anchors: 0 = not at all and 100 = very positively. The mid-point rating of 50 was considered neutral. The visual analog scale was an asset to this research because of its simplicity and length. Nurses are often reluctant to spend the time completing long questionnaires. The single item relies on a subject’s ability to form an overall judgment related to the question. In a 2004 study by de Boer, researchers compared the validity, reliability, and responsiveness of the global visual analog scale quality of life questionnaire with a multi-item questionnaire. The visual analog scale showed moderate to high correlations, $r = 0.30–0.67$, with all subscales of the two multi-item questionnaires. This finding was based on repeated data collected at baseline, 5 weeks, 3 months, and 12 months. Convergent and discriminate validity showed moderate to high correlation with all subscales of the two multi-item scales. Test-retest reliability was also examined. The mean visual analog scale score from baseline and three months was 78.4 (SD 13.0). The intra-class correlation coefficient between the visual analog scale score of these two measurements was $r = 0.87$, $p < 0.01$. Results of the study showed that compared to multi-item questionnaires, the visual analog scale is an instrument with good validity, excellent reliability, moderate estimates of distribution-based responsiveness, and good anchor-based responsiveness. Because of the uniqueness of the instrument, detailed instructions accompanied the scale.
Four single-item visual analog scale instruments were distributed to the followers in this research. The statements for ratings were the following:

1. The coaching relationship I have with my leader has positively impacted my work performance.
2. The coaching relationship I have with my leader has positively impacted my job satisfaction.
3. The coaching relationship I have with my leader has positively impacted my work relationships.
4. The coaching relationship I have with my leader has positively impacted my organizational commitment.

The respondents were asked to enter the number that best represented their rating of the impact the coaching relationship with their nurse leader had during the past year.

**Operational Definitions**

The following operational definitions were used in implementing this research:

**Transformational leadership** was measured through the Multifactor Leadership Questionnaire (5X-Short) by the leader as self and the follower as rater. Measurement was an average score for each of the following leadership styles: idealized influence – attributed, idealized influence – behavior, inspirational motivation, intellectual stimulation, and individualized consideration. The total transformational score was the sum of the average scores on the five components.

**Transactional leadership** was measured through the Multifactor Leadership Questionnaire (5X-Short) by the leader as self and the follower as rater. Measurement was an average score for each of the following leadership scales: contingent reward, management-by-exception (active),
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management-by-exception (passive). The total transactional score was the sum of the average scores of the three components.

**Coaching** was measured by Nurse Leader’s Perceptions of Coaching Behavior Measure and Nurse Follower’s Perception of Leader’s Coaching Measure. The total score was calculated by adding the score of each item. The total score reflected the overall frequency with which coaching behaviors were perceived to be exercised by the leader. The higher the score the more frequently the participant perceived coaching behaviors.

**The impact of coaching on job satisfaction** was measured utilizing the Visual Analogue Scale – Job Satisfaction. Each follower was asked to rate the degree of impact of the coaching relationship on the follower’s job satisfaction. The actual score on the scale was used to measure job satisfaction.

**The impact of coaching on work performance** was measured utilizing the Visual Analogue Scale – Work Performance. Each follower was asked to rate the degree of impact of the coaching relationship on the follower’s work performance. The actual score on the scale was used to measure self-perceived work performance.

**The impact of coaching on work relationships** was measured utilizing the Visual Analogue Scale – Work Relationships. Each follower was asked to rate the degree of impact of the coaching relationship on the follower’s work relationships. The actual score on the scale was used to measure self-perceived work outcomes.

**The impact of coaching on organizational commitment** was measured utilizing the Visual Analogue Scale – Organizational Commitment. Each follower was asked to rate the degree of impact the coaching relationship had on the follower’s organizational commitment. The actual score on the scale was used to measure self-perceived organizational commitment.
Data Collection Procedure

The probability sample was identified from the 794 hospitals of 300 beds or more who were on the list purchased from AHA. The organizations were consecutively ordered numerically. A table of random numbers was used to draw the initial sample of 300 healthcare organizations. This method is not subject to any biases or personal preferences (Bickman & Rog, 1998; Creswell, 2003).

Each organization was contacted by phone to obtain the name, address, and title of the highest level nurse leader. This was complicated by not having a name or title of the nurse leader in advance. Very often the initial connection did not know the nurse leader’s name or have the needed contact information. Websites were also used, but rarely contained the information. Nurse leader’s information could not be ascertained on all organizations.

Three hundred letters were mailed. The letter contained an overview of the project and its purpose. An explanation of the eligibility requirements for participants, both leader and follower, were included. The recipients indicated their willingness to participate by an email response to the researcher.

After six weeks, 17 leaders had consented by email to participate. Seven letters were returned to sender. The researcher attempted to call all non-respondents directly or through their administrative assistant to validate receipt of the information and/or the need to have it sent electronically. This message was often left on voice mail as the contact person was not available. In conversation with the administrative assistant or nurse leader, most requested an electronic version saying it was the most effective method of communicating. Telephone facsimile and the U.S. Postal Service were also used per the contact’s preference. A final follow-up phone call was
made to non-respondents asking if there were any questions about the research or any additional information needed.

This process resulted in 42 leader participants. A second sampling was needed. Finding the postal system ineffective as an initial contact, a modification to the protocol was submitted to the University of Cincinnati’s Institutional Review Board (IRB). Permission was requested to contact the next sampling group by phone to request contact information and to inform them about the research. The preferred method for sending the information would be established at that time. The IRB modification was approved and the remaining 400 organizations in the sampling framework were contacted. No randomization was performed as the entire list was used.

Organizations were contacted by phone requesting the office of the top nurse leader in the organization. This message was often left on voice mail as the contact person was not available. In conversation with the administrative assistant or nurse leader, permission was requested to send information about the research being conducted to assess interest in participating. The document was sent by the preferred method of those interested. The information was most often emailed, but telephone facsimile and the U.S. Postal Service were also used. A total of two follow-up phone calls were made to non-respondents. This resulted in an additional 49 leaders committing to participate.

The leader was sent an email containing the hyperlink to the questionnaire after willingness and eligibility to participate were confirmed per email communication and followers’ names and email addresses were received. This link contained a demographic data sheet, MLQ (5X-Short) – leader, and Leader’s Perception of Coaching Behavior Measure.
Individual emails were then sent to the leaders’ direct reports (followers) inviting them to participate. The email was similar in content to the original letter sent to the leaders containing an overview of the project and its purpose, an explanation of the eligibility requirements for followers, and information about data collection. A hyperlink was included in the email. The survey link included demographic data sheet, MLQ (5X-Short) – rater, The Follower’s Perception of Leader’s Coaching Behavior Measure, and four visual analogue scales (work performance, job satisfaction, work relationships, and organizational commitment).

All participants were asked to complete the questionnaire within seven days. Automatic reminder emails for leaders and followers were set up through the SurveyMonkey© software to send a total of two emails if no response had been received (Dillman, 2000) (Appendices F and G). A thank you email was automatically sent to participants after completion of the questionnaire (Appendix H). When the research was completed, a final email was sent to all participants per SurveyMonkey© announcing the site where the results of the work would be posted (Appendix I).

Of the 91 leaders who committed to participate, 63 responded to the survey and 53 of those met the full study criteria. The most common reasons given for not participating were (a) the leader had not been in the position for a year, (b) the leader was in an interim position, or (c) the leader was too busy. Six hundred and sixty-five survey links were sent to followers. Three hundred and eighty-eight followers volunteered to participate and returned the survey. Three hundred and two met inclusion criteria. Acute care hospitals from 32 states across the country participated in the study. This was a 7% response rate from leaders. The number of potential followers was not known. Followers who were contacted through an email address given by their leader had a 58% response rate.
Data Analysis

The purpose of this research study was to determine whether there was a relationship between highly transformational and highly transactional leadership characteristics and the frequency of coaching behaviors. The effect of leader coaching behavior on followers’ work outcomes was explored. A person-orientated approach with a variable-orientated approach as a general data-analysis framework was implemented. In the variable-orientated approach, the interest is in the relationship between the variables. This is the type of research that has been most often done with the MLQ (O'Shea et al., 2009). Seeking to advance nursing leadership research using the MLQ (5X-Short), a person-orientated approach was added. The person-orientated approach adopts the person rather than the variable as the unit of analysis. People become categorized by their ranking on the variable important to the research; in this case highly transformational or highly transactional leaders (Mangusson & Torstans, 1993). O'Shea et al. (2009) suggest this is a better approach to evaluating optimal effective leadership, supporting Magnusson and Torestad’s (1993) argument that to gain the fullest understanding of a psychological phenomenon requires a framework combining both variable- and person-orientated research.

This was accomplished by converting total transformational and total transactional scores to trichotomous variables. The scales were split at defined points creating separate groups. Bass and Avolio (2004) sampled over 12,500 leaders and followers to determine percentiles to reflect the 25%, 50%, 25% trichotomy. The split points were defined by choosing the top 25% of a leader factor score as high. Low were leaders who scored in the bottom 25%. Those that scored in the middle 50% were medium. The total transactional and total transformational leadership variables reported by leaders and follower were re-coded into a 3-way classification. In the
current study, Bass’ trichotomy of levels differentiating leaders based on total MLQ scores was used. *High* were those ranked by followers in the top 25% on the leadership factors while *low* were those in the bottom 25%. *Medium* fell between the two.

Prior to conducting statistical tests, a code book was developed to establish coding and scoring procedures for both the nurse leaders’ and followers’ demographic data and survey. All surveys and data were transmitted using Secure Sockets Layer (SSL) that secured the connection used between the responder, researcher, and the server. SurveyMonkey® translated the data into an Excel file and transferred the information through a secure, encrypted system directly to the University of Cincinnati’s virtual private network. All data were password protected throughout the entire process.

Statistical tests were performed to determine accuracy and dependability of the standardized measurements reliability. The level of significance for all statistical tests was set at .05. The assumptions of mutually exclusive groups, normal distribution, and homogeneity of variance across groups were tested. Demographic data regarding participants and organizations were analyzed using descriptive statistics. An appropriate measurement including frequency distributions and percentages and/or the mean, median, range, and standard deviation were used to systematically arrange the data for such variables as gender, age, educational level, and length of service.

Statistical analyses for the research questions tested for significant differences. Pearson correlation and multiple regression were used. Cronbach’s alpha was conducted on all standardized measures. The disparity found in literature between leaders’ self rating of their management skills and followers perception (McGuire & Kennerly, 2006) was evaluated in this study. The next section reports on the results from the surveys.
Chapter 4 – Data Analysis

The purpose of this exploratory study was to examine the use of coaching by transformational transactional nurse leaders in acute care hospitals. The general aim was to ascertain if highly transformational leaders are more likely than highly transactional leaders to engage in coaching behaviors. Also of interest was how follower’s perceptions of transformational and transactional nurse leaders varied in relationship to perception of frequency with which coaching behaviors were used by the leader. The relationship between follower perception of coaching and perceived work-related outcomes was also explored.

Data Preparation

Prior to data analysis, criteria were established to ensure that data and scoring of instruments were managed in a consistent way. Cases with missing data were identified and included if the omitted data equaled 5% or less (Tabachnick & Fidell, 2007). A tracking system was used to link nurse leaders with their followers. Returned questionnaires, even if completed, were not used in the study if the participation requirements were not met. Data were verified by checking computer printouts for outliers or extreme values that appeared inappropriate and by reviewing both frequency counts and histograms associated with each variable. No outliers were removed.

Data analysis was conducted using Statistical Package for Social Science 17 (SPSS). Assumptions associated with the use of various statistical tests were taken into consideration and scatterplots were used to detect violations of these assumptions. Visual examination of scatterplots indicated that relationships between the pairs of variables being correlated were substantively linear.
Sample

The participants of the study were 53 nurse leaders and 302 nurse followers.

Nurse Leader Sample

The leader sample consisted of 53 participants. This was a return rate of 7%. The average age was 54.9 years ($SD = 5.49$) within the range of 45 to 68 years. The mean years as an RN were 33 ($SD = 5.4$) within the range of 22 to 45 years. The average time in their current position was 83.42 months ($SD = 65.04$), approximately 7 years, within a wide range of 12 to 294 months. Thirty-two leaders held a masters degree in nursing with nine having a master’s degree in another field. Eight held a doctoral degree in nursing and four had a doctorate in another field. The most common job title was Chief Nursing Officer (76%). The majority reported to the Chief Executive Officer (46%) while 31% reported to the Chief Operating Officer. The nurse leaders were at the same site as their supervisor 80% of the time. Chief nursing officers were most frequently responsible for one site (37%). Twenty-two percent of the nurse leaders had responsibility for two sites. An additional 26% had responsibility for three to six sites. Ninety percent of the leader sample had between 3 and 20 direct reports (mode = 10). The average was 13 direct reports ($SD = 8.7$).

Nurse Follower Sample

The follower sample consisted of 302 participants. Based on the number of followers contacted this was a return rate of 58%. Two hundred and seventy eight were female, 23 male, and one unknown. The mean age was 52-years old ($SD = 6.97$) within the range of 30 to 66. The average amount of time as an RN was 28.5 years ($SD = 8.30$) (range of 2 to 47 years). The average time in the current position was 83.09 months, approximately 7 years ($SD = 91.35$) within the range of 12 to 452 months. Half of the nurse followers held a masters degree in
nursing. Doctoral degrees in nursing were held by 15 followers, while 6 had earned a doctoral degree in another field. Fifty-five followers had baccalaureate degrees in nursing. The remaining held bachelor's degrees in other fields (0.016%), master's degrees in other fields (22%), nursing diplomas (0.026%), or associate degrees (0.003%).

The most common job title for followers was director (64%). The followers were also more often than not at the same site as their supervisor, roughly two-thirds of the time or 68%. The followers had a wide variation in the number of direct reports and number of departments. Twenty followers had no direct reports and 21 had no department reporting to them. Over half of the responding nurse followers (55%) had between 3 and 20 direct reports and 89% had from 1 to 10 departments reporting to them. The followers had a wide variation in span of control (number of direct reports) and scope of responsibility (number of departments). See Table 1 for additional details.

**Descriptive Statistics for Measurement Instruments**

The Multifactor Leadership Questionnaire (5X Short) (MLQ [5X-Short]) was used to measure the transformational and transactional characteristics of leaders. The instrument consisted of five transformational subscales: idealized influence – attributed, idealized influence – behavior, inspirational motivation, intellectual stimulation, and individual consideration. Transactional subsets consisted of three subscales: contingent reward, management-by-exception (active), management-by-exception (passive). The subscale of laissez-fair (no structured leadership) was also measured.

The assumptions of level of measurement, random sampling, and independence of observation were met for both samples. There is a negative skew in the leader and follower data for transformational leadership, indicating a clustering of scores at the high end. Based on the
Table 1

**Demographic Data for Leader and Follower Participants**

<table>
<thead>
<tr>
<th></th>
<th>Nurse Leaders</th>
<th>Nurse Followers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Participants</td>
<td>53</td>
<td>301</td>
</tr>
<tr>
<td>Gender (Female)</td>
<td>52 (98%)</td>
<td>278</td>
</tr>
<tr>
<td>Mean Age in Years</td>
<td>54.9</td>
<td>52</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>5.49</td>
<td>6.95</td>
</tr>
<tr>
<td>Range in Years</td>
<td>45-68</td>
<td>30-66</td>
</tr>
<tr>
<td>Mean Years as RN</td>
<td>33</td>
<td>28.5</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>5.40</td>
<td>8.30</td>
</tr>
<tr>
<td>Range in Years</td>
<td>22-45</td>
<td>2-47</td>
</tr>
<tr>
<td>Average Time in Current</td>
<td>83.42</td>
<td>83.09</td>
</tr>
<tr>
<td>Position in Months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>65.04</td>
<td>91.35</td>
</tr>
<tr>
<td>Range in Years</td>
<td>12-294</td>
<td>12-452</td>
</tr>
<tr>
<td>Highest Degree Completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PhD in Nursing</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>PhD in Other</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Masters Degree in Nursing</td>
<td>32</td>
<td>110</td>
</tr>
<tr>
<td>Masters Degree in Other</td>
<td>9</td>
<td>69</td>
</tr>
<tr>
<td>BSN</td>
<td></td>
<td>90</td>
</tr>
<tr>
<td>Diploma</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Associate Degree</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

generally positive kurtosis scores, the distribution is peaked. According to Tabachnick and Fidel (2007), this will make no substantive difference to estimation of statistics due to the large (30+) sample. The transactional data had a normal curve for both leader and follower. See Appendix J for histograms.
Mean scores for the eight transformational transactional leadership factors were determined by adding the numerical ratings of each of the questions in the eight subscales for transformational and transactional leadership and calculating the average response in each. See Table 2 for frequencies. The means in all factors rated by the leaders were higher than when rated by the followers except in management by exception (active). The leaders’ scores were also higher than average than the self norms offered by Bass & Avolio (2004). The follower’s transformational and transactional scores for leaders were also rated higher than the rater norms except in management-by-exception (active).

Table 2

**Leader Follower MLQ (5X-Short) Factor Frequencies**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Leader Responses</th>
<th>Follower Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Idealized Influence – Attributed</td>
<td>3.41</td>
<td>.39</td>
</tr>
<tr>
<td>Idealized Influence – Behavior</td>
<td>3.61</td>
<td>.42</td>
</tr>
<tr>
<td>Inspirational Motivation</td>
<td>3.62</td>
<td>.38</td>
</tr>
<tr>
<td>Intellectual Stimulation</td>
<td>3.31</td>
<td>.48</td>
</tr>
<tr>
<td>Individual Consideration</td>
<td>3.46</td>
<td>.46</td>
</tr>
<tr>
<td>Contingent Reward</td>
<td>3.38</td>
<td>.49</td>
</tr>
<tr>
<td>Management-by-Exception (Active)</td>
<td>1.57</td>
<td>.72</td>
</tr>
<tr>
<td>Management-by-Exception (Passive)</td>
<td>.82</td>
<td>.57</td>
</tr>
<tr>
<td>Laissez-Fair</td>
<td>.46</td>
<td>.45</td>
</tr>
</tbody>
</table>

*The Perception of Leaders’ Coaching Behavior Measure* (Ellinger et al., 2003) was used to measure the presence of coaching by the leader as perceived by both leaders and followers.
The tool had nine positively stated questions. The highest possible score was a 63 indicating a high frequency of coaching. The scores for the leaders in this study ranged from 33 to 63 with a mean of 53 and $SD = 6.618$. The scores for the followers in this study ranged from 12 to 63 with a mean score of $44.57$ and $SD = 11.284$.

The mean for each question (based on a scale of 1 = lowest to 7 = highest) with standard deviations are presented in Table 3. Leaders and followers ranked the coaching behaviors by frequency in the same order. Leaders ranked their behaviors higher than followers ranked their leaders and both ranked them higher than four (the median score). The rank order of mean scores for the leaders and followers are presented in the table.

Table 3

*Leader/Follower Coaching Perceptions*

<table>
<thead>
<tr>
<th>Leader Coaching Behaviors</th>
<th>Leader $M$ ($SD$)</th>
<th>Follower $M$ ($SD$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicates importance of our goals to goals of organization</td>
<td>6.38 (.99)</td>
<td>5.65 (1.57)</td>
</tr>
<tr>
<td>Connects our work to organization and external environment</td>
<td>6.36 (.76)</td>
<td>5.84 (1.30)</td>
</tr>
<tr>
<td>Sets mutually agreed upon goals</td>
<td>6.21 (.79)</td>
<td>5.36 (1.50)</td>
</tr>
<tr>
<td>Provides resources, removes road blocks</td>
<td>6.02 (.87)</td>
<td>5.24 (1.50)</td>
</tr>
<tr>
<td>Uses examples for learning</td>
<td>5.96 (1.00)</td>
<td>4.89 (1.54)</td>
</tr>
<tr>
<td>Provided performance feedback</td>
<td>5.83 (1.01)</td>
<td>5.31 (1.65)</td>
</tr>
<tr>
<td>Solicits feedback regarding their performance</td>
<td>5.60 (1.10)</td>
<td>4.23 (1.96)</td>
</tr>
<tr>
<td>Asks questions verses gives answers</td>
<td>5.35 (.97)</td>
<td>5.30 (1.49)</td>
</tr>
<tr>
<td>Role plays</td>
<td>3.96 (1.89)</td>
<td>2.90 (1.82)</td>
</tr>
</tbody>
</table>
The visual analog scale examined the level of positive impact the coaching relationship with the leader had on the followers’ work constructs of work performance, job satisfaction, work relationships, and organizational commitment. Each visual analogue scale ranged from 0 to 100. Scores were indicated by a single number within the range. Work performance had an $M = 74.26$, $SD = 25.41$. The range of scores was $0 – 100$ with 183 followers scoring the item at $\geq 80$. Job satisfaction had a $M = 75.41$, $SD = 27.30$. The range of scores was $0 – 100$ with 195 followers scoring the item at $\geq 80$. Work relationships had a $M = 71.50$, $SD = 28.47$. The range of scores was $0 – 100$ with 189 followers scoring the item at $\geq 80$. Organizational commitment had a $M = 74.42$, $SD = 28.60$. The range of scores was $0 – 100$ with 188 followers scoring the item at $\geq 80$.

**Primary Data Analysis**

The following section describes the statistical tests and techniques used to conduct the data analyses for this research study. The measurement instruments used in the study were examined for reliability. Relationships between variables were identified. Research questions one through three were answered.

**Measurement Instrument Reliability**

The reliability of an instrument, based on classic measurement theory, is crucial to identifying its value related to the sample and condition within which it is administered (Polit & Beck, 2006). Bass and Avolio (2004) used the rater scores of the MLQ (5X-Short) for measurement of internal consistency. Cronbach’s alpha coefficient ranged of .72 to .90 across the subscales. Keeping with the method used by Avolio and Bass (2004) the self rated scores of leaders were not used to measure the reliability scores for the MLQ (5X-Short). The Cronbach’s alpha coefficient for the followers on the MLQ (5X- Short) was .90. The Cronbach’s alpha subscales for this study ranged from .58 to 88. (idealized influence – attributed = .85; idealized
influence – behavior = .77; inspirational motivation = .88; intellectual stimulation = .79; individual consideration = .77; contingent reward = .79; management-by-exception [passive] = .70; management-by-exception [active] = .58).

The two versions of the Perception of Leaders’ Coaching Behavior Measure had a Cronbach’s alpha coefficient of .92 for the followers and .79 for the leaders. Ellinger et al. (2003) reported a Cronbach’s alpha of .94 for the multi-item measure for both the followers and leaders. The followers in this study were consistent with Ellinger et al. but the leaders were not. Principal component analysis (PCA) was conducted to find a number of linear combinations to best represent the original variables and their relationships. This was performed on the follower MLQ (5X-Short). A PCA could not be conducted on the leader data because the matrix was not positive definite. This may have been due to pairwise deletion off missing data. PCA was conducted on the leader and follower Perception of Leader Coaching Behavior Measure. No factor analysis was necessary for the visual analogue scales as they are single item by design.

The follower’s MLQ (5X-Short) principal component analysis was performed after the suitability of the data for factor analysis was assessed. The sample size was ≥ 300. Inspection of the correlation matrix of the leader data set revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Oklin value was .96, exceeding the recommended value of .6 (Kaiser, 1970) and Bartlett’s Test of Sphericity (Bartlett, 1954) reached statistical significance (\( p < .001 \)) supporting the factorability of the correlation matrix.

PCA revealed the presence of six components with eigenvalue exceeding one, accounting for 39.5 %, 5.8%, 5.2%, 4.0%, 3.1% and 2.8% respectively for a total of 60.5% of the validity. For simplicity and interpretation, only loadings of .40 or greater on at least one factor and an item loading on two factors with a difference between factor loadings of ≥ .30 were used for
further interpretation. PCA was rerun resulting in four factors. Factor 1 loadings were substantially lower order transformational in nature with two contingency reward items accounting for 37.6% of variance. Factor 2 contained four of the management-by-exception (active) items explaining 7.6% of variation. Factor 3 was passive leadership with six items from management-by-exception (passive) and laissez-faire accounting for 5.9% of variance. Factor 4 was high order transformational leadership made up of idealized influence and inspirational motivation. One contingency reward item loaded on this factor resulting in a total of 5.6% of variance for this factor. The original MLQ (5X-Short) subscales were used for this study because the subscales had been well validated in other studies both in nursing and other sectors.

PCA was conducted on the Nurse Leader’s Perceptions of Coaching Behavior Measure. The nine items of the coaching survey of the leaders were analyzed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Mayer-Oklin value was .82 exceeding the recommended value of .6 (Kaiser, 1970) and the Bartlett’s Test of Sphericity (Bartlett 1954) attained significance. PCA of the leader coaching data revealed the presence of two components with an eigenvalue exceeding one, accounting for 43.9% and 12% of the variance respectively. An examination of the screeplot showed a distinct break after the second component. Using Catell’s (1966) scree test, two components were kept. The component solution accounted for a total of 56% of the variance. Component one was labeled Expectations and component two, Exchange.

The component Expectations was related to coaching items about giving feedback concerning strengths and weaknesses, communicating the importance of mutually agreed upon goals to the follower and organization, and asking questions rather than providing answers. The
Exchange construct was associated with items of soliciting feedback related to the leader’s performance, providing resources in exchange for performance, giving examples to help learn.

PCA was conducted on the Nurse Follower’s Perception of Leader’s Coaching Behavior Measure. The nine items of the coaching survey of the leaders were analyzed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Mayer-Oklin value was .92 exceeding the recommended value of .6 (Kaiser, 1970) and the Bartlett’s Test of Sphericity (Bartlett, 1954) attained significance. PCA of the follower coaching data revealed the presence of one component with an eigenvalue exceeding 1, explaining 63.5% of the variance. An examination of the screeplot showed a distinct break after the first component, Expectations. Using Catell’s (1966) scree test one component was kept.

The reliability of the single-item analogue scale can only be examined with a test-retest. The VAS, when examined for this purpose shows consistent good validity and reliability (de Boer et al., 2004; Youngblut & Casper, 1993). There was no indication to question the reliability in this study.

Relationships Between Variables

The following examines relationships between key bivariate variables. The leaders’ total coaching scores had significant moderate correlations with four of the nine factors in the survey: idealized influence – behavior, \( r = .645, p < .001 \); contingency reward, \( r = .592, p < .001 \); inspirational motivation, \( r = .568, p < .001 \); and individual consideration, \( r = .553, p < .001 \).

Individual items on coaching that had a significant moderate correlation with leader total transformational score were: provides constructive feedback, \( r = .67, p < .001 \); provided followers with resources, \( r = .59, p < .001 \); sets mutually agreed upon goals, \( r = .54, p < .001 \); and uses analogies and examples, \( r = .52, p < .001 \).
Pearson’s product-moment correlation coefficient was performed to determine the magnitude of the linear relationship between Expectation and Exchange and the leader’s transformational and transactional leadership scores on the MLQ (5X-Short). There was a significant moderate correlation between the coaching construct, Expectation, and transformational leadership, \( r = .69, p = 0.01 \). There was no significant correlation between the second construct, Exchange, and transformational leadership. There was no correlation between transactional leadership and the two constructs of coaching, Expectation and Exchange. The details of these results are seen in Table 4.

**Table 4**

*Correlations of Leader MLQ (5X-Short) and Two Coaching Constructs*

<table>
<thead>
<tr>
<th></th>
<th>Leader Total_TF</th>
<th>Leader Total_TA</th>
<th>Expectations</th>
<th>Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total_TF</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td>.07</td>
<td>.70**</td>
<td>.02</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td></td>
<td>.32</td>
<td>.000</td>
<td>.42</td>
</tr>
<tr>
<td>N</td>
<td>54</td>
<td>54</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td><strong>Leader Total_TF</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.07</td>
<td>1</td>
<td>.10</td>
<td>.01</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.32</td>
<td></td>
<td>.25</td>
<td>.47</td>
</tr>
<tr>
<td>N</td>
<td>54</td>
<td>54</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td><strong>Expectations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.70**</td>
<td>.10</td>
<td>1</td>
<td>.02</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.000</td>
<td>.25</td>
<td></td>
<td>.46</td>
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<tr>
<td>N</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td><strong>Exchange</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.03</td>
<td>.01</td>
<td>.02</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.42</td>
<td>.47</td>
<td>.46</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>52</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (1-tailed). TF = Transformational Leader. TA = Transactional Leader**
The leaders’ total coaching scores had significant moderate correlations with four of the nine factors in the survey: idealized influence – behavior, $r = .645, p < .001$; contingency reward, $r = .592, p < .001$; inspirational motivation, $r = .568, p < .001$; and individual consideration, $r = .553, p < .001$. Individual items on coaching that had a significant moderate correlation with leader total transformational score were: provides constructive feedback, $r = .67, p < .001$; provided followers with resources, $r = .59, p < .001$; sets mutually agreed upon goals, $r = .54, p < .001$; and uses analogies and examples $r = .52, p < .001$.

**Follower MLQ (5X-Short) and Coaching**

The relationship between follower’s perception of their leaders’ transformational and transactional leadership characteristics and coaching were investigated using Pearson’s product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. Table 5 shows the strong positive correlation between transformational leadership and coaching, $r = .82, p < .001$. There was no significant correlation between transactional leadership and transformational leadership or transactional leadership and coaching.

**Follower MLQ (5X-Short) and Work Outcomes**

The relationship between follower’s perception of their leaders’ transactional and transformational leadership characteristics and the four work outcomes related to coaching behaviors of the leader were investigated using Pearson’s product-moment correlation coefficient (Table 6). Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity.

There was a strong positive correlation between transformational leadership and all four work outcomes: work performance, $r = .70, p = 0.01$ (1-tailed); job satisfaction, $r = .71, p = 0.01$.
Table 5

**Correlations of Follower MLQ (5X-Short) and Coaching**

<table>
<thead>
<tr>
<th></th>
<th>Follower Total_TF Pearson Correlation</th>
<th>Follower Total_TA Pearson Correlation</th>
<th>Coaching Follower Pearson Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follower Total_TF</td>
<td>1</td>
<td>.04</td>
<td>.82**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.53</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>302</td>
<td>302</td>
<td>302</td>
</tr>
<tr>
<td>Follower Total_TA</td>
<td>.04</td>
<td>1</td>
<td>.03</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.53</td>
<td></td>
<td>.57</td>
</tr>
<tr>
<td>N</td>
<td>302</td>
<td>302</td>
<td>302</td>
</tr>
<tr>
<td>Coaching Follower</td>
<td>.82**</td>
<td>.03</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.57</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>302</td>
<td>302</td>
<td>302</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed). TF = Transformational. TA = Transactional.**

(1-tailed); work relationships, $r = .67, p = 0.01$ (1-tailed); and organizational commitment, $r = .67, p = 0.01$ (1-tailed). There was no significant correlation between transactional leadership and work outcomes.

**Research Questions**

**Research Question 1**

*Is a leader who perceives herself or himself as highly transformational more likely to exercise coaching behaviors with followers than a leader who perceives herself or himself as highly transactional?*

The transformational and transactional leadership variables from the leader sample were converted into trichotomy variables of low, medium, and high to identify the highly transformational and highly transactional leaders. This resulted in 26 highly transformational and
Table 6
*Follower MLQ (5X-Short) and Work Outcomes Correlations*

<table>
<thead>
<tr>
<th></th>
<th>Follower Total_TF</th>
<th>Follower Total_TA</th>
<th>Wkperfo</th>
<th>Jobsat</th>
<th>Wkrelat</th>
<th>Orgcom</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Follower Total_TF</strong></td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.04</td>
<td>.70**</td>
<td>.71**</td>
<td>.67**</td>
</tr>
<tr>
<td><strong>Follower Total_TA</strong></td>
<td>Sig. (1-tailed)</td>
<td>.26</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Wkperfo Pearson Correlation</strong></td>
<td>.70**</td>
<td>.05</td>
<td>1</td>
<td>.87**</td>
<td>.81**</td>
<td>.79**</td>
</tr>
<tr>
<td><strong>Jobsat Pearson Correlation</strong></td>
<td>.71**</td>
<td>.02</td>
<td>.87**</td>
<td>1</td>
<td>.85**</td>
<td>.85**</td>
</tr>
<tr>
<td><strong>Wkrelat Pearson Correlation</strong></td>
<td>.67**</td>
<td>.11*</td>
<td>.81**</td>
<td>.85**</td>
<td>1</td>
<td>.84**</td>
</tr>
<tr>
<td><strong>Orgcom Pearson Correlation</strong></td>
<td>.67**</td>
<td>.08</td>
<td>.79**</td>
<td>.85**</td>
<td>.84**</td>
<td>1</td>
</tr>
<tr>
<td><strong>Sig. (1-tailed)</strong></td>
<td>.000</td>
<td>.21</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>302</td>
<td>302</td>
<td>301</td>
<td>301</td>
<td>301</td>
<td>301</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (1-tailed).
*. Correlation is significant at the 0.05 level (1-tailed).

TF = Transformational Leader. TA = Transactional Leader. Wkperfo = Work Performance; Jobsat = Job Satisfaction; Wkrelat = Work Relationships; Orgcom = Organizational Communication.

Four transactional leaders. Three leaders ranked high on both transformational and transactional and were eliminated due to the mutually exclusive nature of the research question.
A one-sample test was selected to answer this question using the calculated variables of highly transformational and highly transactional leadership and the raw score from the Perception of Leader Coaching Behavior Measure. The preferred method of analysis was an independent sample *t*-test to assess whether the means of the two groups were statistically different from each other. The distribution of the scores resulted in a small sample size; this analysis could not be performed. An exploratory review of the data was conducted to examine data in relationship to breakpoints in high and low scores. The one-sample *t*-test was selected. This test compares the mean score of a sample to a known value, usually the known population mean. In this analysis, the single highly transactional leader was used as the known or population value for that group.

The one-sample *t*-test was used to compare the coaching scores for highly transformational and highly transactional leaders (Table 7). There was a significant difference in scores for transformational and transactional leadership, *t*(22) = 2.98, *p* = .004 (one-tailed), *M* = 54.22, *SD* = 5.19. The mean difference was 3.22, 95% CI [.97, 5.46]. Based on classical frequency probability, a significance of this level made it very unlikely that the difference between the two values occurred by chance.

The results of a PCA of the coaching variables resulted in two constructs, *Expectations* and *Exchange*. *Expectation* addressed three leader behaviors: (a) mutually agreed upon goals between the leader and follower and their importance, (b) feedback, and (c) asking questions versus giving answers. This coaching construct had a strong relationship with transformational leadership, but none with transactional leadership. The second construct, *Exchange*, included (a) providing followers with resources, (b) using analogues, and (c) seeking feedback related to
Table 7

**One-Sample Test**

<table>
<thead>
<tr>
<th>Test Value = 51</th>
</tr>
</thead>
<tbody>
<tr>
<td>95% Confidence Interval of the Difference</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Difference</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>2.98</td>
<td>22</td>
<td>.007</td>
<td>3.22</td>
<td>.97</td>
<td>5.46</td>
</tr>
<tr>
<td>Total Coaching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

leader’s performance. This construct did not correlate to either transformational or transactional leadership.

**Research Question 2**

_How do the followers’ perceptions of transformational and transactional nurse leaders vary in relationship to their perceptions of frequency with which coaching behaviors are used by the leaders?_

A Pearson product-moment correlation coefficient was computed between the followers’ MLQ (5X-Short) factor scores and the Nurse Follower’s Perception of Leader’s Coaching Behavior Measure. There was a strong correlation between the total coaching score and transformational leadership, \( r = .83, p < .0001 \). There was no significant correlation between transactional leadership and total coaching score.

All transformational subscales were strongly correlated with coaching. The correlations ranged from \( r = .72 \) to \( r = .78 \). The strongest scale correlation, \( r = .78 \), was with the transactional subscale contingent reward. The two other transactional subscales had negative correlations with
coaching: management-by-exception (active), $r = -.55$, and management-by-exception (passive), $r = -.30$. Table 8 provides more detailed information on all subscales. The items within the transactional factors of management-by-exception (active and passive) were negatively correlated with coaching. The highest and most consistent negative correlation was with “waits for things to go wrong.”

Table 8

_Correlations between follower coaching items and_ MLQ (5X-Short) _Items_ with positive correlation of _r_ MLQ (5X-Short) _Items_ with negative correlation of ≥ .5 significance of .001

<table>
<thead>
<tr>
<th>Coaching Item</th>
<th>r</th>
<th>MLQ (5X-Short) Items with positive correlation of ≥ .5 significance of .001</th>
<th>r</th>
<th>MLQ (5X-Short) Items with negative correlation of ≥ .5 significance of .001</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My leader uses analogies, scenarios, and examples to help employees learn.</td>
<td>0.562</td>
<td>15. Spends time teaching and coaching.</td>
<td>0.362</td>
<td>12. Waits for things to go wrong before taking action</td>
</tr>
<tr>
<td></td>
<td>0.530</td>
<td>21. Acts in ways that builds my respect.</td>
<td>0.324</td>
<td>7. Is absent when needed</td>
</tr>
<tr>
<td></td>
<td>0.522</td>
<td>31. Helps me to develop my strengths.</td>
<td>0.288</td>
<td>5. Avoids getting involved when important issues arise</td>
</tr>
<tr>
<td></td>
<td>0.504</td>
<td>32. Suggests new ways of looking at how to complete assignments</td>
<td>0.284</td>
<td>28. Avoids making decisions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.248</td>
<td>20. Demonstrates that problems must become chronic before taking action</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.215</td>
<td>3. Fails to interfere until problems become serious</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.173</td>
<td>33. Delays responding to urgent questions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.138</td>
<td>4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.129</td>
<td>24. Keeps track of all mistakes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.097</td>
<td>22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.082</td>
<td>27. Directs my attention toward failures to meet standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0.062</td>
<td>17. Shows that he/she is a firm believer in “If it ain’t broke, don’t fix it.”</td>
</tr>
</tbody>
</table>
### Leadership and Coaching Behaviors

<table>
<thead>
<tr>
<th>Coaching Item</th>
<th>MLQ (5X-Short) Items with positive correlation of ≥ .5 and significance of .001</th>
<th>MLQ (5X-Short) Items with negative correlation of ≥ .5 and significance of .001</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. <strong>My leader encourages me to broaden my perspectives by connecting our work with the larger vision of the organization and the external environment.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- .652 13. Talks enthusiastically about what needs to be accomplished.</td>
<td>.595 10. Instills pride in me for being associated with him/her</td>
<td>.522 12. Waits for things to go wrong before taking action</td>
</tr>
<tr>
<td>- .629 14. Specifies the importance of having a strong sense of purpose</td>
<td>.586 31. Helps me to develop my strengths.</td>
<td>-.399 28. Avoids making decisions</td>
</tr>
<tr>
<td>- .620 36. Expresses confidence that goals will be achieved</td>
<td>.585 21. Acts in ways that builds my respect.</td>
<td>-.345 7. Is absent when needed</td>
</tr>
<tr>
<td>- .595 11. Discusses in specific terms who is responsible for achieving performance targets</td>
<td>.542 30. Gets me to look at problems from many different angles</td>
<td>-.292 24. Keeps track of all mistakes</td>
</tr>
<tr>
<td>- .586 16. Makes clear what one can expect to receive when performance goals are achieved</td>
<td>.530 11. Discusses in specific terms who is responsible for achieving performance targets</td>
<td>-.240 20. Demonstrates that problems must become chronic before taking action</td>
</tr>
<tr>
<td>- .585 22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures</td>
<td>.563 18. Goes beyond self-interest for the good of the group</td>
<td>-.221 3. Fails to interfere until problems become serious</td>
</tr>
<tr>
<td>- .563 34. Emphasizes the importance of having a collective sense of mission</td>
<td>.542 30. Gets me to look at problems from many different angles</td>
<td>-.187 33. Delays responding to urgent questions</td>
</tr>
<tr>
<td>- .530 23. Considers the moral and ethical consequences of decisions</td>
<td>.534 16. Makes clear what one can expect to receive when performance goals are achieved</td>
<td>-.155 22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures</td>
</tr>
<tr>
<td>- .534 34. Emphasizes the importance of having a collective sense of mission</td>
<td>.529 34. Emphasizes the importance of having a collective sense of mission</td>
<td>-.142 17. Shows that he/she is a firm believer in “If it ain’t broke, don’t fix it.”</td>
</tr>
<tr>
<td>- .517 23. Considers the moral and ethical consequences of decisions</td>
<td></td>
<td>-.121 4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.162 27. Directs my attention toward failures to meet standards</td>
</tr>
<tr>
<td>Coaching Item</td>
<td>MLQ (5X-Short) Items with positive correlation of ≥ .5 significance of .001</td>
<td>MLQ (5X-Short) Items with negative correlation of ≥ .5 significance of .001</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>3. My leader provides constructive feedback to me regarding my strengths and my opportunities for improvement.</strong></td>
<td>r = 0.717 31. Helps me to develop my strengths.</td>
<td>r = -0.486 12. Waits for things to go wrong before taking action</td>
</tr>
<tr>
<td></td>
<td>r = 0.648 16. Makes clear what one can expect to receive when performance goals are achieved</td>
<td>r = -0.345 7. Is absent when needed</td>
</tr>
<tr>
<td></td>
<td>r = 0.646 35. Expresses satisfaction when I meet expectations</td>
<td>r = -0.336 20. Demonstrates that problems must become chronic before taking action</td>
</tr>
<tr>
<td></td>
<td>r = 0.624 15. Spends time teaching and coaching</td>
<td>r = -0.329 27. Directs my attention toward failures to meet standards</td>
</tr>
<tr>
<td></td>
<td>r = 0.598 10. Instills pride in me for being associated with him/her</td>
<td>r = -0.208 3. Fails to interfere until problems become serious</td>
</tr>
<tr>
<td></td>
<td>r = 0.594 21. Acts in ways that builds my respect.</td>
<td>r = -0.180 24. Keeps track of all mistakes</td>
</tr>
<tr>
<td></td>
<td>r = 0.591 30. Gets me to look at problems from many different angles</td>
<td>r = -0.170 28. Avoids making decisions</td>
</tr>
<tr>
<td></td>
<td>r = 0.584 8. Seeks differing perspectives when solving problems</td>
<td>r = -0.169 33. Delays responding to urgent questions</td>
</tr>
<tr>
<td></td>
<td>r = 0.581 32. Suggests new ways of looking at how to complete assignment</td>
<td>r = -0.131 22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures</td>
</tr>
<tr>
<td></td>
<td>r = 0.563 13. Talks enthusiastically about what needs to be accomplished</td>
<td>r = -0.116 4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards</td>
</tr>
<tr>
<td></td>
<td>r = 0.539 36. Expresses confidence that goals will be achieved</td>
<td>r = -0.092 17. Shows that he/she is a firm believer in “If it ain’t broke, don’t fix it.”</td>
</tr>
<tr>
<td></td>
<td>r = 0.531 14. Specifies the importance of having a strong sense of purpose</td>
<td></td>
</tr>
<tr>
<td></td>
<td>r = 0.524 26. Articulates a compelling vision of the future</td>
<td></td>
</tr>
<tr>
<td></td>
<td>r = 0.505 11. Discusses in specific terms who is responsible for achieving performance targets</td>
<td></td>
</tr>
</tbody>
</table>

<p>| <strong>4. My leader solicits</strong> | 0.571 32. Suggests new ways of looking at how to | -0.411 12. Waits for things to go wrong before taking action |</p>
<table>
<thead>
<tr>
<th>Coaching Item</th>
<th>MLQ (5X-Short) Items with positive correlation of ( \geq .5 ) significance of .001</th>
<th>MLQ (5X-Short) Items with negative correlation of ( \geq .5 ) significance of .001</th>
</tr>
</thead>
<tbody>
<tr>
<td>feedback from me related to his/her performance as my leader.</td>
<td>complete assignments .567 15. Spends time teaching and coaching .554 13. Talks enthusiastically about what needs to be accomplished .548 31. Helps me to develop my strengths .538 16. Makes clear what one can expect to receive when performance goals are achieved .513 35. Expresses satisfaction when I meet expectations .502 21. Acts in ways that builds my respect</td>
<td>7. Is absent when needed -.362 20. Demonstrates that problems must become chronic -.242 27. Directs my attention toward failures to meet standards before taking action -.242 5. Avoids getting involved when important issues arise -.228 24. Keeps track of all mistakes -.217 28. Avoids making decisions -.206 22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures -.172 3. Fails to interfere until problems become serious -.171 4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards -.150 33. Delays responding to urgent questions -.083 17. Shows that he/she is a firm believer in “If it ain’t broke, don’t fix it.” -.051</td>
</tr>
<tr>
<td>5. My leader provides me with resources and/or removes roadblocks so I can perform my job more effectively.</td>
<td>.731 31. Helps me to develop my strengths. .703 21. Acts in ways that builds my respect. .672 10. Instills pride in me for being associated with him/her .646 16. Makes clear what one can expect to receive when performance goals are achieved .644 13. Talks enthusiastically about what needs to be accomplished. .638 35. Expresses satisfaction when I meet expectations .630 36. Expresses confidence</td>
<td>.559 12. Waits for things to go wrong before taking action -.436 7. Is absent when needed -.412 20. Demonstrates that problems must become chronic before taking action -.377 27. Directs my attention toward failures to meet standards -.320 24. Keeps track of all mistakes -.311 5. Avoids getting involved when important issues arise -.266 28. Avoids making decisions -.215 22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures -.199 33. Delays responding to urgent questions</td>
</tr>
<tr>
<td>Coaching Item</td>
<td>MLQ (5X-Short) Items with positive correlation of ≥ .5 significance of .001</td>
<td>MLQ (5X-Short) Items with negative correlation of ≥ .5 significance of .001</td>
</tr>
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<td>---------------</td>
<td>--------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>.629</td>
<td>15. Spends time teaching and coaching.</td>
<td>-188</td>
</tr>
<tr>
<td>.625</td>
<td>30. Gets me to look at problems from many different angles</td>
<td>-177</td>
</tr>
<tr>
<td>.618</td>
<td>8. Seeks differing perspectives when solving problems.</td>
<td>-076</td>
</tr>
<tr>
<td>.597</td>
<td>19. Treats me as an individual rather than just as a member of a group</td>
<td></td>
</tr>
<tr>
<td>.575</td>
<td>26. Articulates a compelling vision of the future</td>
<td></td>
</tr>
<tr>
<td>.570</td>
<td>23. Considers the moral and ethical consequences of decisions</td>
<td></td>
</tr>
<tr>
<td>.569</td>
<td>32. Suggests new ways of looking at how to complete assignments</td>
<td></td>
</tr>
<tr>
<td>.565</td>
<td>14. Specifies the importance of having a strong sense of purpose</td>
<td></td>
</tr>
<tr>
<td>.555</td>
<td>18. Goes beyond self-interest for the good of the group</td>
<td></td>
</tr>
<tr>
<td>.536</td>
<td>11. Discusses in specific terms who is responsible for achieving performance targets</td>
<td></td>
</tr>
<tr>
<td>.531</td>
<td>9. Talks optimistically about the future</td>
<td></td>
</tr>
<tr>
<td>.522</td>
<td>1. Provides me with assistance in exchange for my efforts.</td>
<td></td>
</tr>
<tr>
<td>.521</td>
<td>34. Emphasizes the importance of having a collective sense of mission</td>
<td></td>
</tr>
<tr>
<td>6. My leader asks questions rather than</td>
<td>.632 31. Helps me to develop my strengths.</td>
<td>-.482 12. Waits for things to go wrong before taking action</td>
</tr>
<tr>
<td>Coaching Item</td>
<td>MLQ (5X-Short) Items with positive correlation of $\geq .5$ significance of .001</td>
<td>MLQ (5X-Short) Items with negative correlation of $\geq .5$ significance of .001</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>providing answers to help me think through issues and define solutions.</td>
<td>builds my respect.</td>
<td>20. Demonstrates that problems must become chronic before taking action</td>
</tr>
<tr>
<td></td>
<td>30. Gets me to look at problems from many different angles</td>
<td>24. Keeps track of all mistakes</td>
</tr>
<tr>
<td></td>
<td>23. Considers the moral and ethical consequences of decisions</td>
<td>5. Avoids getting involved when important issues arise</td>
</tr>
<tr>
<td></td>
<td>36. Expresses confidence that goals will be achieved</td>
<td>27. Directs my attention toward failures to meet standards</td>
</tr>
<tr>
<td></td>
<td>8. Seeks differing perspectives when solving problems.</td>
<td>22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures</td>
</tr>
<tr>
<td></td>
<td>18. Goes beyond self-interest for the good of the group.</td>
<td>28. Avoids making decisions</td>
</tr>
<tr>
<td></td>
<td>35. Expresses satisfaction when I meet expectations</td>
<td>33. Delays responding to urgent questions</td>
</tr>
<tr>
<td></td>
<td>10. Instills pride in me for being associated with him/her</td>
<td>4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards</td>
</tr>
<tr>
<td></td>
<td>13. Talks enthusiastically about what needs to be accomplished.</td>
<td>3. Fails to interfere until problems become serious</td>
</tr>
<tr>
<td></td>
<td>15. Spends time teaching and coaching.</td>
<td>17. Shows that he/she is a firm believer in “If it ain’t broke, don’t fix it.”</td>
</tr>
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<td></td>
<td>16. Makes clear what one can expect to receive when performance goals are achieved</td>
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<td>32. Suggests new ways of looking at how to complete assignments</td>
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<td></td>
<td>14. Specifies the importance of having a strong sense of purpose</td>
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<tr>
<td></td>
<td>19. Treats me as an individual rather than just as a member of a group</td>
<td></td>
</tr>
<tr>
<td></td>
<td>34. Emphasizes the importance of having a collective sense of mission</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26. Articulates a compelling vision of the</td>
<td></td>
</tr>
<tr>
<td>Coaching Item</td>
<td>MLQ (5X-Short) Items with positive correlation of ≥ .5 significance of .001</td>
<td>MLQ (5X-Short) Items with negative correlation of ≥ .5 significance of .001</td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>7. My leader sets mutually agreed upon goals and expectations with me.</td>
<td>.679 31. Helps me to develop my strengths.</td>
<td>- .527 12. Waits for things to go wrong before taking action</td>
</tr>
<tr>
<td></td>
<td>.651 15. Spends time teaching and coaching.</td>
<td>- .384 7. Is absent when needed</td>
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<tr>
<td></td>
<td>.629 13. Talks enthusiastically about what needs to be accomplished.</td>
<td>- .362 27. Directs my attention toward failures to meet standards</td>
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<tr>
<td></td>
<td>.625 16. Makes clear what one can expect to receive when performance goals are achieved</td>
<td>- .361 5. Avoids getting involved when important issues arise</td>
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<td>.609 10. Instills pride in me for being associated with him/her</td>
<td>- .333 24. Keeps track of all mistakes</td>
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<td>.594 35. Expresses satisfaction when I meet expectations</td>
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<td></td>
<td>.586 36. Expresses confidence that goals will be achieved</td>
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<td>.582 30. Gets me to look at problems from many different angles</td>
<td>- .206 28. Avoids making decisions</td>
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<td>.577 26. Articulates a compelling vision of the future</td>
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<td></td>
<td>.573 11. Discusses in specific terms who is responsible for achieving performance targets</td>
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<td>.547 8. Seeks differing perspectives when solving problems.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.545 23. Considers the moral and ethical consequences of decisions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.538 14. Specifies the</td>
<td></td>
</tr>
<tr>
<td>Coaching Item</td>
<td>r</td>
<td>MLQ (5X-Short) Items with positive correlation of ≥ .5 significance of .001</td>
</tr>
<tr>
<td>---------------</td>
<td>-----</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>.532</td>
<td>importance of having a strong sense of purpose</td>
</tr>
<tr>
<td></td>
<td>.529</td>
<td>18. Goes beyond self-interest for the good of the group.</td>
</tr>
<tr>
<td></td>
<td>.514</td>
<td>19. Treats me as an individual rather than just as a member of a group</td>
</tr>
<tr>
<td></td>
<td>.509</td>
<td>9. Emphasizes the importance of having a collective sense of mission</td>
</tr>
<tr>
<td>8. My leader</td>
<td>.661</td>
<td>13. Talks enthusiastically about what needs to be accomplished.</td>
</tr>
<tr>
<td>communicates</td>
<td>.651</td>
<td>36. Expresses confidence that goals will be achieved</td>
</tr>
<tr>
<td>the</td>
<td>.654</td>
<td>21. Acts in ways that builds my respect.</td>
</tr>
<tr>
<td>importance</td>
<td>.650</td>
<td>31. Helps me to develop my strengths.</td>
</tr>
<tr>
<td>of our agreed</td>
<td>.648</td>
<td>10. Instills pride in me for being associated with him/her</td>
</tr>
<tr>
<td>upon goals</td>
<td>.631</td>
<td>26. Articulates a compelling vision of the future</td>
</tr>
<tr>
<td>and</td>
<td>.628</td>
<td>14. Specifies the importance of having a strong sense of purpose</td>
</tr>
<tr>
<td>expectations</td>
<td>.625</td>
<td>16. Makes clear what one can expect to receive when performance goals are achieved</td>
</tr>
<tr>
<td>to the broader</td>
<td>.615</td>
<td>30. Gets me to look at problems from many different angles</td>
</tr>
<tr>
<td>goals of the</td>
<td>.614</td>
<td>15. Spends time teaching and coaching.</td>
</tr>
<tr>
<td>organization.</td>
<td>.606</td>
<td>35. Expresses satisfaction when I meet expectations</td>
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</table>
### MLQ (5X-Short) Items with positive correlation of ≥ .5 significance of .001

<table>
<thead>
<tr>
<th>Coaching Item</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Discusses in specific terms who is responsible for achieving performance targets</td>
<td>.592</td>
</tr>
<tr>
<td>23. Considers the moral and ethical consequences of decisions</td>
<td>.581</td>
</tr>
<tr>
<td>18. Goes beyond self-interest for the good of the group.</td>
<td>.562</td>
</tr>
<tr>
<td>8. Seeks differing perspectives when solving problems.</td>
<td>.560</td>
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<tr>
<td>32. Suggests new ways of looking at how to complete assignments</td>
<td>.543</td>
</tr>
<tr>
<td>34. Emphasizes the importance of having a collective sense of mission</td>
<td>.539</td>
</tr>
<tr>
<td>19. Treats me as an individual rather than just as a member of a group</td>
<td>.509</td>
</tr>
</tbody>
</table>

### MLQ (5X-Short) Items with negative correlation of ≥ .5 significance of .001

<table>
<thead>
<tr>
<th>Coaching Item</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Waits for things to go wrong before taking action</td>
<td>-.314</td>
</tr>
<tr>
<td>7. Is absent when needed</td>
<td>-.280</td>
</tr>
<tr>
<td>33. Delays responding to urgent questions</td>
<td>-.189</td>
</tr>
<tr>
<td>3. Fails to interfere until problems become serious</td>
<td>-.181</td>
</tr>
<tr>
<td>20. Demonstrates that problems must become chronic before taking action</td>
<td>-.175</td>
</tr>
<tr>
<td>5. Avoids getting involved when important issues arise</td>
<td>-.158</td>
</tr>
<tr>
<td>28. Avoids making decisions</td>
<td>-.145</td>
</tr>
<tr>
<td>22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures</td>
<td>-.082</td>
</tr>
<tr>
<td>27. Directs my attention toward failures to meet standards</td>
<td>-.051</td>
</tr>
</tbody>
</table>

**9. My leader uses role-play with me to help me experience a different perspective to situations.**
<table>
<thead>
<tr>
<th>Coaching Item</th>
<th>MLQ (5X-Short) Items with positive correlation of $r \geq .5$ and significance of .001</th>
<th>MLQ (5X-Short) Items with negative correlation of $r \geq .5$ and significance of .001</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards</td>
<td>-.047</td>
<td>4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards</td>
</tr>
<tr>
<td>17. Shows that he/she is a firm believer in “If it ain’t broke, don’t fix it.”</td>
<td>-.032</td>
<td>17. Shows that he/she is a firm believer in “If it ain’t broke, don’t fix it.”</td>
</tr>
<tr>
<td>24. Keeps track of all mistakes</td>
<td>-.015</td>
<td>24. Keeps track of all mistakes</td>
</tr>
</tbody>
</table>

**Research Question 3**

*Do followers who rate their nurse leaders as highly transformational as contrasted with highly transactional perceive that the leader-follower coaching relationship has positively impacted their work performance, job satisfaction, work relationships, and organizational commitment?*

The transformational and transactional leadership variables from the follower sample were converted into trichotomy variables of low, medium, and high to identify the highly transformational and highly transactional leaders. After removing leaders who were rated high on both, the sample consisted of 223 highly transformational leaders and 69 highly transactional leaders.

An independent sample $t$-test was conducted to compare work performance, job satisfaction, work relationships, and organizational commitment of the followers’ for highly transformational and highly transactional leaders. There was a significant difference between highly transformational and highly transactional leadership scores for all four variables.

Work performance scores significantly different between transformational and transactional leader, $M = 83.45$, $SD = 16.39$ ($n = 223$), and $M = 46.49$, $SD = 27.42$ ($n = 69$); $t$
The magnitude of the differences between the means, \( \alpha \text{ difference of } = -36.97, 95\% \text{ CI } [-43.89, -30.05] \), was large, with \( d = 1.64 \) (Cohen, 1988). The comparison for job satisfaction also demonstrated a significant difference between transformational leadership, \( M = 85.81, SD = 16.54 \) (\( n = 223 \)), and transactional leadership, \( M = 44.00, SD = 29.88 \) (\( n = 69 \)); \( t(290) = 11.11, p < .001 \). The magnitude of the differences between the means, with a mean \( \alpha \text{ difference of } = -41.81, 95\% \text{ CI } [-49.30, -34.32] \) was large, with \( d = 1.73 \). Work relationships also showed a significant difference between transformational leadership, \( M = 81.04, SD = 16.58 \) (\( n = 223 \)), and transactional leadership, \( M = 42.75, SD = 29.61 \) (\( n = 69 \)); \( t(290) = -10.01 \). The magnitude of the differences between the means, a mean difference of \( = -38.29, 95\% \text{ CI } [-44.89, -30.69] \), was also large, \( d = 1.59 \). Lastly, organizational commitment scores also demonstrated a significant difference between transformational leadership, \( M = 84.45, SD = 19.76 \) (\( n = 223 \)), and transactional leadership, \( M = 43.71, SD = 29.60 \) (\( n = 69 \)); \( t(290) = -.10.72 \). The magnitude of the differences between the means, a mean difference of \( = -40.75, 95\% \text{ CI } [-43.30, -31.19] \), was again large, \( d = 1.63 \).

**Research Question 4**

*When nurse leaders perceive themselves as highly transformational or highly transactional, do their followers perceive that the leader-follower coaching relationship has positively impacted the followers’ work performance, job satisfaction, work relationships, and organizational commitment?*

Leaders who had three or more direct reports who participated in the follower sample were paired together in a unique sample to answer this question. The sample size of clustered leaders and followers was 39 leaders with 259 followers, totaling 298 individuals. The
Table 9

Independent Samples Test for Work Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Levene’s Test for Equality of Variances</th>
<th>$t$-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
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<td>Sig.</td>
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<td>Equal variances not assumed</td>
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<tr>
<td>JOBSAT</td>
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<tr>
<td>Equal variances assumed</td>
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</table>

WKPERFO = Work Performance; JOBSAT = Job Satisfaction; WKRELAT = Work Relationships; ORGCOM = Organizational Commitment
transformational and transactional leadership variables from the leader sample were converted into trichotomy variables of low, medium and high to identify the highly transformational and highly transactional leaders. After removing leaders who were rated high on both, there were no highly transactional leaders that were not also highly transformational. Further analysis could not be performed.

**Additional Analyses**

Additional statistical testing was conducted to identify other characteristics influencing the perception of coaching frequencies by nurse followers. An independent \( t \)-test was used to assess if the location of the leader made a difference in perceived coaching frequency. No significant difference \( (p = .435) \) with \( \alpha \) set at the .05 level was found.

The relationship between length of time in current position and frequency of coaching was measured using the Pearson’s product-moment correlation. There was a weak negative correlation between the two variables that was none the less statistically significant \( r = -.18, n = 302, p = .002 \), with less time in current position perceived to be associated with high frequency of coaching. No statistically significance relationship was found between education or age and coaching.

Leaders from both the leader and follower sample were classified as either transformational or transactional. Bass (1999) states, “The full range of leadership as measured by the MLQ (5X-Short) implies that every leader displays a frequency of both the transactional and transformational behaviors, but each leader’s profile involves more of one and less of another” (p. 11). To categorize the leaders, a cluster analysis was performed, specifically a \( k \)-means iterative partitioning method. This analysis required the researcher to identify a specific number of clusters a priori and in this research two clusters were identified. Based on this
information, homogenous subtypes were shaped by calculating centers for the clusters from information related to distance from the means or similarity of the variables. Using algorithms, the process was repeated until there were no changes in cluster membership (Borgen & Barnett, 1987).

The dominate profile of the leader (transformational or transactional) as defined by the follower was produced. Seventy-five percent of the leaders were defined as transformational leaders while 25% were defined as transactional. Sixty percent of the leaders described categorized themselves as transformational and 40% as transactional.

Correlation coefficients were computed among the eight factors of transformational and transactional leadership. Using the Bonferroni approach to control for Type I error rates across the 16 correlations, a \( p \) value of less than .005 was required for significance. The results of the correlation analyses are presented in Table 10 and show that the five transformational factors and one transactional factor, contingent reward, are statistically significant and had correlations coefficients between .725 and .808. The two other transaction factors had negative correlations.

The relationship between perceived coaching (as measured by the Nurse Follower’s Perception of Leader’s Coaching Behavior Measure) and the five factors of transformational leadership and three factors of transactional leadership (as measured by the MLQ [5X-Short]) using the total sample were investigated using Pearson product-moment correlation coefficient. There was a large positive correlation between all transformational subscales: idealized influence – attributed, \( r = .75, n = 302, p \leq .001 \); idealized influence – behavior, \( r = .70, n = 302, p \leq .001 \); inspirational motivation, \( r = .73, n = 300, p \leq .001 \); intellectual stimulation, \( r = .75, n = 300, p \leq .001 \); and individual consideration, \( r = .77, n = 301, p \leq .001 \).
### Table 10

**Correlation of Eight MLQ (5X-Short) Factors**

<table>
<thead>
<tr>
<th></th>
<th>II_A</th>
<th>II_B</th>
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<th>IC</th>
<th>CR</th>
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<th>MBEA</th>
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</table>

**Correlation is significant at the 0.01 level (1-tailed).**

II_A = Idealized Influence – Attributed; II_B = Idealized Influence – Behavior; IM = Inspirational Motivation; IS = Intellectual Stimulation; IC = Individual Consideration; CR = Contingent Reward; MBEP = Management-by-Exception (Passive); MBEA = Management-by-Exception (Active);
The transactional subset of contingent reward and coaching had the highest correlation, \( r = .78, n = 302, p = .001 \). The two other transactional subsets were negatively correlated: management-by-exception (passive), \( r = -.46, n = 301, p = .001 \); management-by-exception (active), \( r = -.30, n = 302, p = .001 \).

The relationship between highly transformational and highly transactional leadership was examined on all factors. Highly transformational leaders scored particularly well in idealized influence – attributed. Participants instilled pride, built respect in others, and displayed a sense of power frequently if not always 88% to 90% of the time. Highly transactional leaders scored at this level 48% of the time. Highly transformational leaders frequently if not always go beyond their self-interest 79% of the time while highly transactional leaders were perceived as doing this 20% of the time.

Highly transformational leaders also rated well on the factor idealized influence – behavior, perceived over 90% of the time as frequently if not always considering the moral and ethical consequences of decisions as well as having a sense of purpose and mission. Highly transactional leaders were perceived as performing at this level 52% of the time. Highly transformational leaders ranked lower on talking about their most important values and beliefs frequently if not always 54% of the time with highly transactional scoring 35%.

Inspirational motivation was in the same range as the previous two factors for highly transformational leaders. These leaders articulated a compelling optimistic vision and spoke enthusiastically and confidently about achieving objectives frequently if not always 89% of the time. Highly transactional leaders were perceived at this point 51% of the time.

Lower level transformational factors revealed a decrease in perception of high performance. On the factor intellectual stimulation, highly transformational leaders looked at
problems from different perspectives, got others to do so, and offered new ways of doing things frequently if not always 62% of the time. Highly transactional leaders did this 31% of the time. Re-examining critically the assumptions frequently if not always was practiced at the same percentages, 40%, for both highly transformational and highly transactional leaders.

On the factor individual consideration, highly transformational leaders frequently if not always treated others as individuals 84% of the time, while highly transactional did so 73% of the time. Sixty-five percent of highly transformational leaders frequently if not always consider individuals as having different abilities and helped them to develop. Forty percent of highly transactional leaders were perceived to act this way. Half of the highly transformational leaders and 20% of highly transactional leaders were seen as frequently if not always coaching.

The measures of highly transformational and highly transactional leaders on the transaction factor of contingent reward were similar to those found on the two lower transformational factors. Highly transformational frequently if not always discussed in specific terms who was responsible for performance targets 79% of the time. Highly transactional were seen this way 45% of the time. Highly transformational leaders made clear what followers received for performance 64% of the time. Highly transactional leaders provided assistance for efforts frequently if not always 60% of the time but made clear what followers received for performance only 32% of the time. Highly transformational leaders expressed satisfaction when expectations were met frequently if not always 53% of the time. Highly transactional leaders did this 79% of the time.

Both highly transformational and highly transactional leaders scored much lower in the factors under management-by-exception – active and passive. The management-by-exception (active) item of focusing on irregularities and mistakes was seen as frequently if not always by
followers 50% of the time in highly transactional leaders. Eighteen percent of highly transformational leaders did this at the same level. Other management-by-exception behaviors were seen more often by highly transactional leaders than transformational leaders, but overall very infrequently.

**Conclusion**

This chapter presented the use of quantitative methods and a correlational design to assist in examining the employment of coaching by transformational transactional nurse leaders in acute care hospitals. Two instruments, The Multifactor Leadership Questionnaire and the Perception of Leader’s Coaching Behavior Measure, were given to the leader and follower samples to measure these concepts. The follower group also completed four visual analogue scales measuring the impact their leader’s coaching had on their work performance, job satisfaction, work relationships, and organizational commitment.

A total of 53 leaders and 302 followers participated in the study. The nurse leader sample was 98% female with an average age of 54.9 years. The medium length of time in their current position was six years and seven months. All held master degrees and 12 held doctorates. Leaders were most often referred to as chief nursing officer and reported directly to the chief executive officer or chief operating officer. The majority were responsible for more than one site. There was wide variation in number of direct reports will most falling between 4 and 20.

The follower sample of 302 was dominantly female (92%). The average age was 52 and had been in their positions for 1 to 37 years with the average time of 12.5 years. Over half of the followers held the master in nursing degree with a total of 21 doctorates. Fifty-five held baccalaureates degrees in nursing. The remaining held bachelors and masters degree in other fields with 11 not being college graduates. Followers were most commonly at the same site as
their leader (63%) and had a wide variation (1-10) in number of departments reporting to them. The followers were, on average, three years younger than their leader and had been in their job twice as long.

Highly transformational leaders were more likely to coach their followers than highly transactional leaders. The coaching relationship between the leader and follower resulted in the follower’s perception of increased work performance, job satisfaction, work relationships, and organizational commitment.
Chapter 5 – Findings and Conclusion

Healthcare needs successful nurse leaders to create and maintain a healthy and safe practice environment for both nurses and patients. Acute care hospitals are fundamentally complicated organizations where nurse leaders must answer to numerous stakeholders and meet performance goals across multiple levels of achievement such as quality, cost, and satisfaction. Transformational leadership has emerged as the best style for the challenging environment of healthcare. Transformational leadership is a high performing level of leadership that requires maturity and experience. The aging leaders of nursing coupled with high turnover rates of top nurse leaders increases the need for leadership development within the acute care healthcare environment.

This study examined the first and second tier of nurse leaders in the largest level acute care hospitals (300 beds or more) across the United States. The style of leadership of the chief nurse leader was ascertained by surveying both the leaders and followers. In addition, the specific coaching behavior of leaders as perceived by leaders and followers was studied.

The theory of transformational transactional leadership was used as the theoretical framework for this research. Burns (1978) saw transformational leaders as seeking to arouse and satisfy higher order needs of followers as exemplified by Maslow’s hierarchy of needs. Burns believed this increased awareness and arousal of needs by leaders, which goes beyond self-interest, could produce extraordinary efforts from followers. The transformational leader raises consciousness about higher contributions through articulation and role modeling (Burns).

Bass (1985) expands Burns’ thinking by adding that transformational and transactional leaders were not mutually exclusive. Through continued work on the theory, Bass (1999) introduced the Full Range Leadership Model, which suggests that every leader, “displays
frequency of both the transactional and transformational factors, but each leader’s profile involves more or less of the other” (p. 11). The model’s key strength is that it showed leaders were likely to use factors across the continuum of transformation and translational leadership based on organizational realities.

Leaders can increase followers’ confidence by expanding what followers previously had considered ordinary and attainable. The follower’s interests begin to expand to higher order goals and transcending their previous expectations. This becomes particularly important as the development of leadership is examined.

Growth in the capacity and capability of the nursing workforce is realized when a transformational leader identifies and works with the characteristics of idealized influence, inspirational motivation, intellectual stimulation, and individual consideration (Page, 2004). Development of the followers seems primarily housed in individual consideration and intellectual stimulation. Intellectual stimulation, as described by Bass (1990), is an effort to promote creative thinking and innovative approaches to problem solving. The behaviors of questioning assumptions and approaching old situations in new ways are fostered. Leaders engage with their followers to “discern, comprehend, visualize, conceptualize, and articulate…..opportunities and threats facing the organization” (Bass, 1985, p. 99). Input is solicited from followers and included in the choice of action to be taken (Bass et al., 2003).

In Bass’ (1985) original work, individual consideration was described as a developmental construct. It fulfills the followers’ desire for information and control of their fate, fosters one-on-one communication between leader and followers, supports awareness of individual differences, and promotes delegation from the leader to the follower. Antonakis et al. (2003) describe individualized consideration as referring to “leader behavior that contributes to follower
Leadership and Coaching Behaviors

satisfaction by advising, supporting, and paying attention to individual needs of followers, and thus allowing them to develop and self-actualize” (p. 365). This results in followers making more effort than anticipated and performing beyond expectations (Bass, 1985). Bass also contended that the transactional factor of contingent reward formed the foundation for the leader-follower relationship in terms of defining expectations, clarifying roles and responsibilities, collaboration, and recognition and rewards. Bass et al. (2003) found, in contrast to earlier research, that contingency reward as well as transformational leadership predicted performance. Having identified factors that could improve performance and develop followers, an exploration into how to ensure follower success and create learning methods for effective transformational leaders (i.e., coaching) was undertaken.

At the beginning of this current study, coaching was viewed as a manifestation of transformational leadership. Coaching involves specific skills that support follower development and align well with individual consideration and intellectual stimulation. Coaching between the leader and follower is action orientated and encourages interactive and forward movement in the development of the follower as well as the leader. New aspirations emerge as new capabilities develop. With this understanding of transformational leadership, the purpose of this research was to test whether a relationship existed between highly transformational leadership, highly transactional leadership, coaching, and the work outcomes of work performance, job satisfaction, work relationships, and organizational commitment. This chapter includes (a) discussion of findings and conclusions organized and addressed by the individual research questions, (b) limitations associated with this research, and (c) recommendations based on this study.
Findings

Research Question 1. Is a leader who perceives herself or himself as highly transformational more likely to exercise coaching behaviors with a follower than a leader who-perceives herself or himself as highly transactional?

Leaders who rated themselves as highly transformational saw themselves as using coaching behaviors more often than a highly transactional leader. This was further supported by looking at the total leader sample. There was a strong relationship between transformational leadership and coaching. The results of a PCA of the coaching variables resulted in two constructs, *Expectations* and *Exchange*. *Expectation* addressed three leader behaviors: (a) mutually agreed upon goals between the leader and follower and their importance, (b) feedback, and (c) asking questions verses giving answers. This coaching construct had a strong relationship with transformational leadership, but none with transactional leadership. The second construct, *Exchange*, included (a) providing followers with resources, (b) using analogues, and (c) seeking feedback related to leader’s performance. This construct, although seen as an important part of coaching behavior, did not correlate to either transformational or transactional leadership. This is a different result than found in previous work. Ellinger et al. (2003) conducted a PCA of the leader and follower in their population and both resulted in one construct. The nurse followers in this research viewed coaching as one construct.

The two construct finding suggests nurse leaders view coaching differently than the manufacturing leaders studied for the survey development and from nurse followers in this study. Nurse leaders see giving feedback, teaching through questions versus answers, setting mutual goals, and explaining how the goals fit in with the organizational goals as coaching.
Removing barriers, teaching through stories, and asking about the leader’s own performance is not as strongly associated with the other behaviors of coaching and is not related to transformational leadership. Given this information, additional work needs to be done to understand what “coaching” means to a predominately female, well educated, mature group of leaders. Assumptions should not be made that leaders and followers in an organization are working from the same perspective of coaching.

**Research Question 2.** How do the followers’ perceptions of transformational and transactional nurse leaders vary in relationship to their perceptions of frequency with which coaching behaviors are used by the leaders?

There was a strong relationship between transformational leadership and coaching behaviors as perceived by followers, while there was no relationship between transactional leadership and coaching. In a more detailed analysis of coaching and the eight factors of transformational transactional leadership, it was found that the transactional factor, contingent reward, had the strongest association with coaching. This was an unexpected finding. Individual consideration and intellectual stimulation, while highly correlated, were anticipated to be the dominant factors aligned with coaching based on work from Bass (1985, 1999; Hater & Bass, 1988) and from the coaching literature in general.

These findings are similar to Bass’ (1999) work with military units. The author maintained that the need for specific expectations, clear responsibilities, and recognition for achieving expectations found in contingent reward were basic to successful leadership in organizations that execute complex, multi-level dealings. The followers in this study valued this factor as it related to coaching from their leader. This does not support the argument made by Heslen et al., (2006) who suggest coaching differs from transactional traits of initiating structure,
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defined roles, and formal process of communication. Bass (1985) originally proposed that contingency reward built the foundation of the relationship between leaders and followers and transformational factors of individual consideration and intellectual stimulation were developmental in nature. This work supports that argument. Contingency reward is clearly important to followers. Nurse executives can use this information to better understand the importance of clear role definitions, expectations, and rewards even to high level nurse directors. Nurse leadership within the hospital environment of complex procedures, quality initiatives, and critical clinical situations requires the structure of contingency reward. This transactional aspect should remain a part of a nurse leader’s approach and be included in leadership development initiatives.

Lack of discriminant validity between transformational and transactional contingent reward leadership was present in this work. Contingency reward had a stronger relationship with transformational factors than transactional factors of management-by-exception (active and passive). In Bass’ original work (1985) and subsequent work by Antonakis et al., (2003) the authors hypothesized there were nine factors, five transformational and three transactional. This research does not support that. The factor analysis of the follower MLQ (5X-Short) showed a four factor model with three contingency reward items loading on the two transformational factors and none on the two transactional factor. These results indicate further research is needed on the factor structure of the MLQ (5X-Short) survey.

There were four items of the MLQ (5X-Short) that correlated \( r = \geq .5 \) on eight coaching items. These were in rank order: spends time teaching and coaching, acts in ways that builds my respect, helps me to develop my strengths, and suggests new ways of looking at how to complete assignment; indicating consistent value of these points. The item, my leader provides me with
resources and/or removes road blocks so I can perform my job more effectively was related most frequently to MLQ (5X-Short) items. This was followed by my leader set mutually agreed upon goals and expectations with me and my leader communicates the importance of our agreed upon goals and expectations to the broader goals of the organization. No one MLQ (5X-Short) factor dominated any of the questions. There were interesting combinations of factor items on each coaching question. These unique findings support the idea that transformational leaders coach their followers using all transformational factors and transactional contingency reward. These correlations inform how coaching relates to the items of the MLQ (5X-Short). Nurse leaders and followers can use performance on the tool to inform their approach to coaching.

All transformational factors and transactional contingency reward were closely related to coaching behaviors. A leader who knows this can use a coaching approach to manifest the behaviors of lower to higher order factors as the situation requires.

**Research Question 3.** Do followers who rate their nurse leaders as highly transformational as contrasted with highly transactional perceive that the leader-follower coaching relationship has positively impacted their work performance, job satisfaction, work relationships, and organizational commitment?

The general analysis of relationships scales and outcome variables revealed that highly transformational leaders’ coaching relationship with followers had a greater impact on work performance, job satisfaction, work relationships, and organizational commitment than highly transactional leaders’ coaching behavior. This supports the importance of coaching behaviors. Enhancement of all four work outcomes have been correlated with transformational leadership in the literature. This is the first time these outcomes have been empirically connected to highly transformational leaders’ coaching relationship with followers. The highest mean was job
satisfaction, followed by organizational commitment, work performance, and work relationships in that order. The followers’ ratings on these variables were well above the mean indicating a high level of satisfaction with their current situation. Ellinger et al. (2003) found a positive relationship between coaching behaviors and followers’ job satisfaction. The other outcomes have not been studied related to coaching. Followers who have this information will seek leaders who have a coaching approach to developing their direct reports. This in turn will support the leader’s recruitment and retention efforts.

**Research Question 4.** When nurse leaders perceive themselves as highly transformational or highly transactional, do their followers perceive that the leader-follower coaching relationship has positively impacted their work performance, job satisfaction, work relationships, and organizational commitment?

A final statistical analysis to determine if the difference in leaders’ rating of highly transformational and transactional leadership and their followers’ perception of the coaching relationship impacted the four work outcomes could not be completed. It was not anticipated that leaders and followers would rank leaders as both highly transformational and transactional. While these styles of leadership are not mutually exclusive, leaders having characteristics of both the dual high rankings were not expected given the unique underlying assumptions of each. The leaders ranked themselves higher on the MLQ (5X-Short) than the followers. This gap between leaders’ self rating and those of their followers’ is consistent with the literature (Bass & Avolio’s, 2004; Dunham-Taylor, 2003; McGuire & Kennerly, 2006). It may explain some of the high scores on both transformational and transactional leadership. Because this is the first research using the person-centered approach with the trichotomous variable, there is no work to compare these findings.
Additional Findings

Additional statistics were completed to gain further insight into the relationship between transformational transactional leadership and coaching.

**Transformational Transactional Leadership.** The nurse leaders in this study were dominantly transformational and rated above average on transformational and transactional characteristics from the perspective of the leader as well as the follower. Several of the demographic characteristics of the group have been cited in literature as fostering transformational leadership. Female leaders tend to be more transformational than male. Educated, experienced leaders are more inclined towards transformational characteristics than less mature, novice leaders. The transformational style is more effective than other leadership approaches in chaotic, rapidly changing work environments (Avolio & Bass, 2002; Bass, 1990b; Bass & Avolio, 1997; Bass et al., 2003).

Transformational leaders are more likely than transactional leaders to participate in research of this type. Transformational leaders re-examine critical assumptions, seek new knowledge and act in ways that build respect (Bass, 1985). All of these somewhat positive facets may not fully explain the high ratings. In a personal conversation with Avolio discussing the high transformational ratings, he suggested these scores could also reflect job insecurity, i.e., an unwillingness to honestly critique the current state (B. Avolio, personal communication, October 19, 2010). Finally, some nurse leaders may have felt it was not a good time for evaluation and chose not to participate.

The results suggest that nurse leaders are predominately transformational with good outcomes through coaching. Organizations seeking to achieve these outcomes could strengthen their efforts by developing a culture that supports transformational leadership.
**Highly transformational transactional leaders.** Highly transformational leaders scored well on the top three factors of transformational leadership on the MLQ (5X-Short) – idealized influence – attributed, idealized influence – behaviors, and inspirational motivation. This high performing group was perceived by followers to practice the behaviors and attitudes “frequently if not always” a high percentage of the time. Generally, highly transactional leaders were erratic in their performance of these, although some use was noted. The lower level transformational factors of intellectual stimulation and individual consideration were present less in highly transformational leaders and more in highly transactional leaders. This supports Bass’ position that these factors can form a bridge between transactional and transformational leadership behaviors. The transactional factor of contingent reward had similar scores as the lower level transformational factors. The association between contingent reward and transformational behaviors has been empirically documented in numerous studies. This work supports that both highly transformational and highly transactional leaders use these behaviors. Contingent reward also had the strongest correlation with coaching. Knowing the success of these highly transformational leaders, nurse executives can use this knowledge to strengthen their own practices by developing this approach.

Highly transformational leaders were strongest in the highest level factors of transformational leadership. This is supported by Bass’ theory. It was not anticipated that leaders who were high in transformational characteristics would also be high in transactional characteristics as was found in this study. This is not supported by the theory of transformational transactional leadership.

**Rare Sample.** This was a rare sample that had not often been studied. Executive nurse leaders were difficult to find and access. There is no list of names of the executive nurse leaders
of acute care hospitals. The American Hospital Association list gave a name and phone number of the organization. Nurse leader names were sought through hospital operators, administrative assistance, websites, and Google. All this makes it difficult to invite this population to participate in national nursing research.

The constant in the sample was bed size. The variables found in the list from the AHA related to organizations were academic, teaching, public, private, for-profit, not-for profit, urban, suburban, and rural hospitals located in the 48 contiguous states. This sample offers a wide variety of environments for the study of nurse leadership. The consistent findings of transformational leaders who coach, and through that relationship positively impact followers work performance, job satisfaction, work relationships, and organizational commitment is positive but surprising.

**Chief Nursing Officer Turnover.** While the graying of nurse leadership is not a new topic, the follower group offered insight into the depth of this nursing issue. The mean age of the chief nursing executives was 55, but the mean age of their direct reports, their replacements, was 52. Of the nurse executives who gave a reason for not participating in the study, not been in their position for a year or interim status was the most frequent. This is congruent with recent research (Jones et al., 2009) that looked at the crisis of nurse leader turnover. In addition to current turnover statistics, Jones et al. found that 62% of chief nursing officers surveyed anticipated leaving their position within five years. A serious need for leadership development has been clearly identified.

**Coaching.** Six factors, five transformational and one transactional (contingent reward), were identified as highly predictable for coaching behaviors of leaders. This research supports coaching as a manifestation of transformational leadership. Transformational leadership is
described in *Patient Safety* (Page, 2004) as occurring when the leaders connect with their followers to achieve commonly held goals. Coaching provides a supportive structure and an action process to encourage growth and development of the follower.

While there is extensive research showing effective transformational leadership and contingent rewards having a positive impact on workplace outcomes, the variables of interest in this study were the coaching behaviors of leaders’ and their impact on work performance, job satisfaction, work relationships, and organizational commitment. The findings support that the coaching relationship between the leader and follower has a positive impact on the follower’s work performance, job satisfaction, work relationships, and organizational commitment. This has broad-reaching implications, not the least of which is the ability to retain and recruit both nurse leaders and staff (Chalofsky & Kirshna, 2009; MacPhee et al., 2010).

Ellinger et al. (2008) suggested that while the coaching style of leadership is one of the most valuable, the coaching leader continues to be an uncommon type. This research does not support that premise. This work reflects a national group of nurse leaders who are coaching and getting results for their effort.

**Limitations**

The first limitation of this study was that participants were asked to self-report behaviors of the leader and give attitudinal data that serves as the criterion. Such work has weak internal validity because the results are dependent on several alternative explanations, a problem of common-method variance. A second limitation of the study was the low response rate. The lack of response to the survey poses the potential for statistical errors and strength of analysis because of the exclusion of prospective data from the individuals who chose not to participate. Sample bias is another limitation. People who chose to take the survey may have been motivated by very
happy or very unhappy feelings. Self-report measures may also lead to social desirability response bias (Polit & Beck, 2006).

The final limitations of this study were introduced by the need to trichotomize the leaders' transformational and transactional scores. Separating the scores into high, medium, and low categories, while facilitating the analysis and adding to the understanding of leader behavior, led to a potential distortion of the original data. The practice of categorizing data is known to result in some loss of information about individual differences and decreased power, two of the five most commonly encountered methodological research limitations (MacCallum, Zhang, Preacher, & Rucker, 2002). In this study, the resulting loss in power and information were justified by the need to study the full range of transformational and transactional leader behaviors and gain new insights about the exercise of leadership in healthcare organizations.

**Practice Implications**

Although the data supports coaching by transformational leaders as a positive influence on work outcomes, the question of how to teach coaching remains. How can nurse leaders be taught to effectively coach their followers? Start first with acquiring knowledge. There are two kinds of knowledge acquisition: descriptive and acquaintance (Russel, 1921). Descriptive is learned in a passive way such as reading or lecture, while acquaintance is learned by doing. Acquiring transformation leadership skills requires both. Coaching can provide a form of skill training that comes from practice. A leader who wants to acquire or enhance intellectual stimulation, individual consideration, and contingency reward can rely on coaching as a process or developmental strategy for closing the gap between having knowledge of these components and putting them into action as a catalyst of influence and creativity. It is suggested that a process of coaching be added to transformational leadership education.
Transformational leadership education should be considered for undergraduate as well as graduate nursing programs. Additionally, coaching should be considered as part of an organization’s leadership development plan. This should not be seen as a one-time engagement with the developing leader, but an on-going and interactive process as suggested by de Casterle et al. (2008). Based on the disparity between what leaders do and what followers perceive leaders as doing, the use of a 360 analysis would a valuable part of this process. This research offers evidence to support the use of coaching in nurse leader development. Additionally, policy implications should be considered. As organizations such as the American Association of Colleges of Nursing, American Organization of Nurse Executives, and Sigma Theta Tau International define policies for strategic direction, adding coaching between leaders and followers will offer direction towards goals and objectives of leadership development.

**Future Research**

In spite of this study’s contributions, more research is needed related to coaching and nurse leadership development. Of interest is a quasi experimental study to test the hypothesis that teaching leaders coaching techniques improves their effectiveness as transformational leaders. A longitudinal study design would be valuable to assess the stability of the effect of coaching education and the timeframe for the effect to be observed. Qualitative research would be helpful to understand coaching from a broader perspective. It would be interesting to understand what the concept of coaching means to predominately female professional group of leaders and followers. Finally, a study that combined observations of nurse leader behaviors with a staff questionnaire could be triangulated to give a more multi dimensional look at how the two relate.
Conclusion

In an attempt to categorize and summarize the findings resulting from this research several concluding comments are presented for consideration.

1) Assumptions should not be made that nurse leaders and followers are working from the same perspective of what coaching means. It is still a relatively new term in nursing literature and may remain somewhat ambiguous.

2) Effective nurse leadership within hospital environment of complex procedures, quality initiatives, and critical clinical situations requires the structure of contingency reward along with the five factors of transformational leadership.

3) Continued work is needed on the factor structure of the MLQ (5X-Short) survey. It is still not clear how the factor of contingency reward works within the model of transformational transactional leadership.

4) Organizations seeking to achieve effective work performance, job satisfaction, work relationships, and organizational commitment can strengthen their efforts by developing a culture that supports transformational leadership.

5) Coaching provides a supportive structure and an action process to encourage development of the follower. These behaviors should be incorporated into nurse leadership training to advance the growth of present and future nurse leader.

Bass (2003) suggests that after 60 years of developing models of leadership and theoretical research it is time to focus on developing both transformational and transactional leaders. Bass goes on to differentiate between leader development and leadership development. Leadership development focuses on the interaction of the leader within the social-organization context. This research supports coaching as the mechanisms for this development. Coaching
behaviors allow the leader to move from lower level contractual behaviors of defining roles and expectations with the follower to higher order support and exchange of emotional resources.

This research found a dominant number of transformational leaders existed in this sample of nurse executives. These nurse leaders coached and their coaching relationship with followers had a very positive effect on the followers’ work performance, job satisfaction, work relationships, and organizational commitment. This research offers a unique and positive example of real world nurse leaders and provides a platform for future nurse leader development.
References


Failla, K., & Stichler, J. (2008). Manager and staff perceptions of the manager's leadership style. *Journal of Nursing Administration, 38*(11), 480-487.


Thyer, G. (2003). Dare to be different; Transformational leadership may hold the key to reducing the nursing shortage. *Journal of Nursing Management, 11*, 73-79.


Appendix A

Nurse Leader Letter
Dear (name),

Your nursing leadership knowledge and experience are needed! As a practitioner you have information that is critical to understanding nursing leadership development. Please participate in this research directed at gaining insight into the development and implementation of nursing leadership. The results of this work will be directly available via my web site in appreciation of your participation.

The purpose of the study is to investigate the relationship between leadership styles of executive nurse leaders and coaching behaviors as perceived by their direct reports. Research such as this is intended to provide additional insight into the challenging positions of nurse leaders in healthcare today. What we learn could help us in the future to improve leadership training, development of nurse leaders, and positively impact staff nurses’ work perceptions, relations, and performance. As a doctoral candidate at the University of Cincinnati, College of Nursing, I am currently in the process of collecting data for my dissertation and would like to ask for your help.

For this research, I am recruiting a random sample of the highest nurse leader in acute care organizations of greater than 300 beds, from across the country. In turn, I will ask the nurse leader to invite all of her/his nurse direct reports to participate as well. Two hundred and fifty leaders with 1000 of their direct nurse reports will be recruited for this work.

This will be an electronic process. The survey used in the study requires less than 20-25 minutes to complete. All data will be reported as group data to maintain confidentiality. A coding system will be used to protect the confidentiality of the volunteers.

As a participant, two things will be required: (1) complete an online questionnaire and (2) share your RN direct reports’ full names and email addresses. will be contacted individually by the researcher and invited to voluntarily participate. To be eligible to participate the following criteria must be met:

- You are the highest level nurse leader in your organization and
- You have been in your current position for one year or longer.

- You and five or more of your direct nurse reports must voluntarily participate in the study in order for the data from your organization to be included in the final analysis. It is not expected that you will be exposed to any risk by being in this research study.
I can provide an abbreviated copy of my research proposal for your review if desired. As stated earlier, results will be available on my web site. Participants will be notified when the results are available. Enclosed is an abstract of the proposed study. The University of Cincinnati Institutional Review Board has reviewed and approved this research.

If you have any questions about my research or wish to discuss this study, feel free to contact either myself and/or my faculty advisor:

Jeanne-Marie Tapke RN, MSN  
Doctoral Candidate  
University of Cincinnati  
College of Nursing  
859-750-4851 (cell)  
589-331-8198 (home)  

Susan Kennerly, RN, PhD  
Faculty Advisor  
University of Cincinnati  
College of Nursing  
513-558-0310  

Please contact me by email at jmtapke@fuse.net to indicate your interest in supporting this research and providing the names and addresses of your direct nurse reports. I would appreciate a response by ____________. Thank you in advance for considering this request.

Respectfully,

Jeanne-Marie Tapke, RN, MSN
Abstract

Strong nursing leadership is needed to create a healthier and safer practice environment for both nurses and patients. Transformational leadership is identified as an empowering leadership style that can be used within today’s hospital and nursing environment to improve organizational outcomes (McGuire & Kennerly, 2006). Coaching is believed to encompass several key characteristics of transformational-transactional leadership and may be an effective means for use in developing and/or expanding the leader’s skills and in guiding leader development of followers (Humphreys & Einstein, 2003; Kowalski & Casper, 2007) The link between coaching and leader behaviors has been studied in non-healthcare organizations, but little is known about the use of coaching behaviors by healthcare leaders. The object of this study is to ascertain if highly transformational leaders are more likely than highly transactional leaders to engage in coaching behaviors; the relation between transformational-transactional leadership and frequency of coaching; and the influence between the leader-follower coaching relationships and work-related outcomes of work performance, job satisfaction, work relationships, and organizational commitment.

The sample will consist of the highest ranking nurse leaders in hospital organizations and her/his direct nurse reports. A correlational, non-experimental research design will be used to study the relationship of transformational/transactional leadership characteristics and coaching behaviors applied by nursing leaders. The Multifactor Leadership Questionnaire (MLQ [5X-Short]) developed by Bass and Avolio (1999a), a researcher developed Coaching Behavior Survey, and four visual analogue surveys of work-related outcomes will be used to measure the variables of interest. Statistical analyses to answer the research questions will test for significant
differences and associations between and among variables using T-tests for dependent groups, ANOVA, Pearson correlation, and multiple regression.
Appendix B

Nurse Followers Request for Participation
Your authentic perspective from the practice setting is invaluable to advancing nursing knowledge related to nursing leadership development. Please participate in this research directed at gaining insight into the development and implementation of nursing leadership. In deference to your demanding schedule this is a completely electronic process. The results of this work will be directly available to you via my web site in appreciation of your participation.

As a doctoral candidate at the University of Cincinnati, College of Nursing, I am investigating the relationship between leadership styles of executive nurse leaders and coaching behaviors as perceived by their direct reports. Your nurse leader has agreed to participate in this study and has given permission for direct nurse reports to rate his/her leadership style. Your participation is voluntary. Your individual answers will not be reported to your nurse leader. A coding system will be used to protect the confidentiality of all participants. Completing the questionnaire indicates your consent to participate in the research.

For this research, I am recruiting a random sample of the highest nurse leader in acute care organizations of greater than 300 beds, from across the country. I am asking the nurse leader to invite all of her/his nurse direct reports to participate as well. Two hundred and fifty leaders with 1000 of their direct nurse reports will be recruited for this work.

You are being asked to take part in a onetime on-line survey process. The survey will take approximately 25-30 minutes. All data gathering in this study will be handled in a confidential manner and will only be reported as group data. There are no anticipated discomforts or risks associated with participation. You are free to withdraw from the study without fear of penalty or negative consequences. Participation is voluntarily. You maintain the right not to answer or respond to specific questions on the survey or to stop participating at any time. To take the confidential on-line survey, please click on the following web link ____________.

The University of Cincinnati Institutional Review Board has approved this research. Attached is an abstract of the proposed study. If you have questions related to the research, however, feel free to contact me, principal investigator or my faculty advisor:

Jeanne-Marie Tapke RN, MSN, Doctorial Candidate
University of Cincinnati College of Nursing
859-750-4851 (cell) jmtapke@fuse.net

Susan Kennerly, RN, PhD, Faculty Advisor
University of Cincinnati College of Nursing
513-558-0310 susan.kennerly@uc.edu

The data you provide will be very important to the success of this study. Again, in appreciation of your participation the results of this work will be directly available via my web site by June of this year. You will not have to pay anything to be in this study. Participants will be notified when the results are available. I would like to thank you in advance for considering this request and sincerely hope that you will become a participant.
Respectfully,

Jeanne-Marie Tapke RN, MSN
Doctoral Candidate
University of Cincinnati
College of Nursing
Appendix C

Nurse Leader Email Response to Willingness to Participate
To: Nurse Leader.
Subject: research participation
Date: upon receipt of email to participate

Thank you for your willingness to participate in an online questionnaire related to data for leadership development. To take the confidential on-line survey please click on the following web link _______.

If you have any questions or concerns regarding participation please contact me at jmtapke@fuse.net.

Jeanne-Marie Tapke RN, MSN
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859-331-3808 (office)
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Susan Kennerly, RN, PhD
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susan.kennerly@uc.edu
Dissertation Survey - Nurse Leader

1. Informed Consent

Completion of this on-line survey will be interpreted as the responders implied consent to participate in this research project.

Next

Dissertation Survey - Nurse Leader

2. Demographic Data Sheet for Nurse Leaders

Directions: Please complete this section by providing the requested information and/or by clicking on the blank space next to the most appropriate answer.

1. Job Title: Choose the title that best reflects your job title:

- Chief Nursing Officer
- Vice President of Nursing
- Vice president of Clinical Services
- Other

Other (please specify)

2. Reporting Structure: Choose the title that best reflects the title of the person to whom you report:

- Chief Executive Officer
- Chief Finance Officer
- Chief Operating Officer
- Executive Vice President
- Other

Other (please specify)
3. Is your direct supervisor’s primary office at the same location as yours?

☐ Yes  ☐ No

4. Number of persons that report directly to you:


5. Number of organizational sites reporting to you:


6. Gender

☐ Gender  Male  ☐ Female

7. Age


8. Number of years as a registered nurse (RN):


9. Number of years in current leadership position:

Year (s)  
Months  

10. Number of years in nursing leadership/management:

Year (s)  
Months  

11. **Education: Choose all that apply**

- Diploma
- Associate Degree in nursing
- Associate Degree in other field
- Baccalaureate Degree in nursing
- Baccalaureate Degree in other field
- Master’s Degree in nursing
- Master’s Degree in other field
- Doctoral Degree in Nursing
- Doctoral Degree in other field

By completing this questionnaire, I indicate my consent to participate in the study.

---

**Dissertation Survey - Nurse Leader**

**Exit this survey**

**3. Multifactor Leadership Questionnaire - Leader Form**

This questionnaire is to describe your leadership style as you perceive it. Please answer all items on this answer sheet. If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits you. The word “others” may mean your peers, clients, direct reports, supervisors, and/or all of these individuals.

Use the following rating scale:
1. I provide others with assistance in exchange for their efforts

- 1 Not at all
- 2 Once in a while
- 3 Sometimes
- 4 Fairly often
- 5 Frequently, if not always

2. I re-examine critical assumptions to question whether they are appropriate

- 1 Not at all
- 2 Once in a while
- 3 Sometimes
- 4 Fairly often
- 5 Frequently, if not always

3. I fail to interfere until problems become serious

- 1 Not at all
- 2 Once in a while
- 3 Sometimes
- 4 Fairly often
- 5 Frequently, if not always

4. I focus attention on irregularities, mistakes, exceptions, and deviations from standards

- 1 Not at all
- 2 Once in a while
- 3 Sometimes
- 4 Fairly often
- 5 Frequently, if not always

5. I avoid getting involved when important issues arise

- 1 Not at all
- 2 Once in a while
- 3 Sometimes
- 4 Fairly often
- 5 Frequently, if not always

6. I talk about my most important values and beliefs

- 1 Not at all
- 2 Once in a while
- 3 Sometimes
- 4 Fairly often
- 5 Frequently, if not always
7. I am absent when needed

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

8. I seek differing perspectives when solving problems

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

9. I talk optimistically about the future

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

10. I instill pride in others for being associated with me

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

11. I discuss in specific terms who is responsible for achieving performance targets

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

12. I wait for things to go wrong before taking action

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

13. I talk enthusiastically about what needs to be accomplished

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

14. I specify the importance of having a strong sense of purpose

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always
<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>5</th>
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<tr>
<td>15. I spend time teaching and coaching</td>
<td></td>
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<tr>
<td>16. I make clear what one can expect to receive when performance goals are achieved</td>
<td></td>
<td></td>
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<tr>
<td>17. I show that I am a firm believer in &quot;If it ain’t broke, don’t fix it.&quot;</td>
<td></td>
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<tr>
<td>18. I go beyond self-interest for the good of the group</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>19. I treat others as individuals rather than just as a member of a group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. I demonstrate that problems must become chronic before I take action</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>21. I act in ways that build others’ respect for me</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
22. I concentrate my full attention on dealing with mistakes, complaints, and failures

[ ] 1 Not at all  [ ] 2 Once in a while  [ ] 3 Sometimes  [ ] 4 Fairly often  [ ] 5 Frequently, if not always

23. I consider the moral and ethical consequences of decisions

[ ] 1 Not at all  [ ] 2 Once in a while  [ ] 3 Sometimes  [ ] 4 Fairly often  [ ] 5 Frequently, if not always

24. I keep track of all mistakes

[ ] 1 Not at all  [ ] 2 Once in a while  [ ] 3 Sometimes  [ ] 4 Fairly often  [ ] 5 Frequently, if not always

25. I display a sense of power and confidence

[ ] 1 Not at all  [ ] 2 Once in a while  [ ] 3 Sometimes  [ ] 4 Fairly often  [ ] 5 Frequently, if not always

26. I articulate a compelling vision of the future

[ ] 1 Not at all  [ ] 2 Once in a while  [ ] 3 Sometimes  [ ] 4 Fairly often  [ ] 5 Frequently, if not always

27. I direct my attention toward failures to meet standards

[ ] 1 Not at all  [ ] 2 Once in a while  [ ] 3 Sometimes  [ ] 4 Fairly often  [ ] 5 Frequently, if not always

28. I avoid making decisions

[ ] 1 Not at all  [ ] 2 Once in a while  [ ] 3 Sometimes  [ ] 4 Fairly often  [ ] 5 Frequently, if not always

29. I consider an individual as having different needs, abilities, and aspirations from others

[ ] 1 Not at all  [ ] 2 Once in a while  [ ] 3 Sometimes  [ ] 4 Fairly often  [ ] 5 Frequently, if not always
30. I get others to look at problems from many different angles

<table>
<thead>
<tr>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>

31. I help others to develop their strengths

<table>
<thead>
<tr>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>

32. I suggest new ways of looking at how to complete assignments

<table>
<thead>
<tr>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>

33. I delay responding to urgent questions

<table>
<thead>
<tr>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>

34. I emphasize the importance of having a collective sense of mission

<table>
<thead>
<tr>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>

35. I express satisfaction when others meet expectations

<table>
<thead>
<tr>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>

36. I express confidence that goals will be achieved

<table>
<thead>
<tr>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>

37. I am effective in meeting others’ job-related needs

<table>
<thead>
<tr>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>
38. I use methods of leadership that are satisfying
☐ 1 Not at all ☐ 2 Once in a while ☐ 3 Sometimes ☐ 4 Fairly often ☐ 5 Frequently, if not always

39. I get others to do more than they expected to do
☐ 1 Not at all ☐ 2 Once in a while ☐ 3 Sometimes ☐ 4 Fairly often ☐ 5 Frequently, if not always

40. I am effective in representing others to higher authority
☐ 1 Not at all ☐ 2 Once in a while ☐ 3 Sometimes ☐ 4 Fairly often ☐ 5 Frequently, if not always

41. I work with others in a satisfactory way
☐ 1 Not at all ☐ 2 Once in a while ☐ 3 Sometimes ☐ 4 Fairly often ☐ 5 Frequently, if not always

42. I heighten others’ desire to succeed
☐ 1 Not at all ☐ 2 Once in a while ☐ 3 Sometimes ☐ 4 Fairly often ☐ 5 Frequently, if not always

43. I am effective in meeting organizational requirements
☐ 1 Not at all ☐ 2 Once in a while ☐ 3 Sometimes ☐ 4 Fairly often ☐ 5 Frequently, if not always

44. I increase others’ willingness to try harder
☐ 1 Not at all ☐ 2 Once in a while ☐ 3 Sometimes ☐ 4 Fairly often ☐ 5 Frequently, if not always

45. I lead a group that is effective
☐ 1 Not at all ☐ 2 Once in a while ☐ 3 Sometimes ☐ 4 Fairly often ☐ 5 Frequently, if not always

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Dissertation Survey - Nurse Leader
Exit this survey

4. Nurse Leader’s Perceptions of Coaching Behavior Measure

Directions
1. Read each item carefully
2. Click in the circle of the number next to each item that best describes the frequency of the behavior.
3. Use the following scale:
1 = almost never to 7 = almost always

1. I use analogies, scenarios, and examples to help my employees learn.
   - 1 2 3 4 5 6 7
   - almost never
   - almost always

2. I encourage my followers to broaden their perspectives by connecting our work with the larger vision of the organization and the external environment.
   - 1 2 3 4 5 6 7
   - almost never
   - almost always

3. I provide constructive feedback to my followers regarding their strengths and their opportunities for improvement.
   - 1 2 3 4 5 6 7
   - almost never
   - almost always
4. I solicit feedback from my followers related to my performance as their leader.

☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  
almost never  almost always

5. I provide my followers with resources and/or remove road blocks so they can perform their jobs more effectively.

☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  
almost never  almost always

6. I ask questions, rather than provide answers, to help followers think through issues and define solutions.

☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  
almost never  almost always

7. I set mutually agreed upon goals and expectations with my followers.

☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  
almost never  almost always

8. I communicate the importance of our agreed upon goals and expectations to the broader goals of the organization.

☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  
almost never  almost always
9. I use role-play with my followers to help them experience a different perspective to situations.

1  2  3  4  5  6  7
almost  never  almost  always
never

Modified from Employee Perceptions of Supervisor/Line Manager Coaching Measure (Ellinger, Ellinger & Keller; 2003)

Dissertation Survey - Nurse Leader
Exit this survey

5. Thank you for participation in this study.
Appendix D

Nurse Followers Questionnaire
1. Informed Consent

Completion of this on-line survey will be interpreted as the responders implied consent to participate in this research project.

2. Demographic Data Sheet for Nurse Followers

Directions: Please complete this section by providing the requested information and/or by clicking on the blank space next to the most appropriate answer.

1. Job Title: Choose the title that best reflects your job title:

- Director
- Associate Director
- Assistant Director
- Clinical Director/Coordinator
- Unit Manager
- Vice President
- Associate Vice President
- Assistant Vice President

Other (please specify)

2. Is your direct supervisor’s primary office at the same location as yours?

- Yes
- No
3. Number of persons that report directly to you: 

4. In reference to the nursing units you currently oversee, indicate the area(s) of specialty. Mark all that apply.

- [ ] Medical/Surgical
- [ ] Critical Care
- [ ] Cardiac/Telemetry
- [ ] Maternity Services
- [ ] Pediatric
- [ ] Behavioral Health
- [ ] Rehabilitation
- [ ] Perioperative (OR/PAC/SDS)
- [ ] Emergency Doom
- [ ] Sub-acute Care
- [ ] Out Patient Clinics
- [ ] Other

Other (please specify):

5. Number of units/departments reporting to you

6. Gender

- [ ] Gender Male
- [ ] Female

7. Age

8. Number of years as a registered nurse (RN):

9. Number of years in current position:

Year (s)

Months
10. Number of years in current leadership position:

Year (s) 

Months 

11. Education: Choose all that apply

☐ Diploma
☐ Associate Degree in nursing
☐ Associate Degree in other field
☐ Baccalaureate Degree in nursing
☐ Baccalaureate Degree in other field
☐ Master’s Degree in nursing
☐ Master’s Degree in other field
☐ Doctoral Degree in Nursing
☐ Doctoral Degree in other field

Dissertation Survey - Nurse Follower
Exit this survey

2. Multifactor Leadership Questionnaire - Rater Form

This questionnaire is used to describe the leadership style of the above-mentioned individual as you perceive it. Answer all items on this answer sheet. If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank. Please answer this questionnaire anonymously.

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits the person you are describing.
Use the following rating scale:

1. Not at all  
2. Once in a while  
3. Sometimes  
4. Fairly often  
5. Frequently, if not always

1. The person I am rating provides me with assistance in exchange for my efforts

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

2. The person I am rating re-examines critical assumptions to question whether they are appropriate

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

3. The person I am rating fails to interfere until problems become serious

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

4. The person I am rating focuses attention on irregularities, mistakes, exceptions, and deviations from standards

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

5. The person I am rating avoids getting involved when important issues arise

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always
6. The person I am rating talks about his/her most important values and beliefs

1 Not at all   2 Once in a while   3 Sometimes   4 Fairly often   5 Frequently, if not always

7. The person I am rating is absent when needed

1 Not at all   2 Once in a while   3 Sometimes   4 Fairly often   5 Frequently, if not always

8. The person I am rating seeks differing perspectives when solving problems

1 Not at all   2 Once in a while   3 Sometimes   4 Fairly often   5 Frequently, if not always

9. The person I am rating talks optimistically about the future

1 Not at all   2 Once in a while   3 Sometimes   4 Fairly often   5 Frequently, if not always

10. The person I am rating instills pride in me for being associated with him/her

1 Not at all   2 Once in a while   3 Sometimes   4 Fairly often   5 Frequently, if not always

11. The person I am rating discusses in specific terms who is responsible for achieving performance targets

1 Not at all   2 Once in a while   3 Sometimes   4 Fairly often   5 Frequently, if not always

12. The person I am rating waits for things to go wrong before taking action

1 Not at all   2 Once in a while   3 Sometimes   4 Fairly often   5 Frequently, if not always
13. The person I am rating talks enthusiastically about what needs to be accomplished

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

14. The person I am rating specifies the importance of having a strong sense of purpose

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

15. The person I am rating spends time teaching and coaching

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

16. The person I am rating makes clear what one can expect to receive when performance goals are achieved

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

17. The person I am rating shows that he/she is a firm believer in “If it ain’t broke, don’t fix it.”

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

18. The person I am rating goes beyond self-interest for the good of the group

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

19. The person I am rating treats me as an individual rather than just as a member of a group

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always
20. The person I am rating demonstrates that problems must become chronic before I take action

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

21. The person I am rating acts in ways that build my respect

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

22. The person I am rating concentrates his/her full attention on dealing with mistakes, complaints, and failures

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

23. The person I am rating considers the moral and ethical consequences of decisions

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

24. The person I am rating keeps track of all mistakes

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

25. The person I am rating displays a sense of power and confidence

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

26. The person I am rating articulates a compelling vision of the future

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always
27. The person I am rating directs my attention toward failures to meet standards

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

28. The person I am rating avoids making decisions

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

29. The person I am rating considers me as having different needs, abilities, and aspirations from others

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

30. The person I am rating gets me to look at problems from many different angles

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

31. The person I am rating helps me to develop my strengths

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

32. The person I am rating suggests new ways of looking at how to complete assignments

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

33. The person I am rating delays responding to urgent questions

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always
34. The person I am rating emphasizes the importance of having a collective sense of mission

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

35. The person I am rating expresses satisfaction when I meet expectations

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

36. The person I am rating expresses confidence that goals will be achieved

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

37. The person I am rating is effective in meeting my job-related needs

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

38. The person I am rating uses methods of leadership that are satisfying

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

39. The person I am rating gets me to do more than I expected to do

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always

40. The person I am rating is effective in representing me to higher authority

☐ 1 Not at all  ☐ 2 Once in a while  ☐ 3 Sometimes  ☐ 4 Fairly often  ☐ 5 Frequently, if not always
41. The person I am rating works with me in a satisfactory way

<table>
<thead>
<tr>
<th></th>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>

42. The person I am rating heighten my desire to succeed

<table>
<thead>
<tr>
<th></th>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>

43. The person I am rating is effective in meeting organizational requirements

<table>
<thead>
<tr>
<th></th>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>

44. The person I am rating increase my willingness to try harder

<table>
<thead>
<tr>
<th></th>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
<th>5 Frequently, if not always</th>
</tr>
</thead>
</table>

45. The person I am rating leads a group that is effective

<table>
<thead>
<tr>
<th></th>
<th>1 Not at all</th>
<th>2 Once in a while</th>
<th>3 Sometimes</th>
<th>4 Fairly often</th>
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3. Use the following scale:
1 = almost never to 7 = almost always

1. My leader uses analogies, scenarios, and examples to help me learn.

2. My leader encourages me to broaden my perspectives by connecting our work with the larger vision of the organization and the external environment.

3. My leader provides constructive feedback to me regarding my strengths and my opportunities for improvement.

4. My leader solicits feedback from me related to her/his performance as my leader.

5. My leader provides me with resources and/or remove road blocks so I can perform my job more effectively.

6. My leader asks questions, rather than provide answers, to help me think through issues and define solutions.
7. My leader sets mutually agreed upon goals and expectations with me.

[1 2 3 4 5 6 7]

almost never

8. My leader communicates the importance of our agreed upon goals and expectations to the broader goals of the organization.

[1 2 3 4 5 6 7]

almost never

9. My leader uses role-play with me to help them experience a different perspective to situations.

[1 2 3 4 5 6 7]

almost never

Modified from Employee Perceptions of Supervisor/Line Manager Coaching Measure (Ellinger, Ellinger & Keller; 2003)
3. Enter a number that best represents your rating of the impact the coaching relationship with your nurse leader has had during the past year.

1. Visual Analogue Survey – Work Performance
The coaching relationship I have with my leader has positively impacted my work performance

0 Not at all - 100 Very positively

2. Visual Analogue Survey – Job Satisfaction
The coaching relationship I have with my leader has positively impacted my job satisfaction.

0 Not at all - 100 Very positively

3. Visual Analogue Survey – Work Relationships
The coaching relationship I have with my leader has positively impacted my work relationships.

0 Not at all - 100 very positively

4. Visual Analogue Survey – Organizational Commitment
The coaching relationship I have with my leader has positively impacted my organizational commitment.

0 Not at all - 100 Very positively
Dissertation Survey - Nurse Follower

5. Thank you for participation in this study.
Appendix E
LETTER OF PERMISSION FOR USE OF MLQ (5X-SHORT)
May 11, 2011

To whom it may concern,

Based on purchase via Invoice 23511 on October 2, 2002, this letter is to grant permission for Jeanne-Marie Tapke to reproduce/administer up to 600 copies of the following copyright material;

Instrument: *Multifactor Leadership Questionnaire*

Authors: *Bruce Avolio and Bernard Bass*

Copyright: *1995 by Bruce Avolio and Bernard Bass*

for her thesis research.

Five sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

[Signature]

Robert Most
Mind Garden, Inc.
www.mindgarden.com

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Appendix F

Nurse Leaders Reminder Email Communication
To: Nurse Leaders  
Subject: research participation  
Date: reminder sent every week x five or until survey response  

This is reminder to take the online questionnaire related to data studying relationship between leadership styles of nurse leaders and coaching behaviors. Please participate in the study by clicking on _______ and taking the confidential survey.  

Participation is voluntarily. You are free to withdraw from the study without fear of penalty or negative consequences. You maintain the right not to answer or respond to specific questions on the survey or to stop participating at any time. If you are not interested in participating in this research please indicate this in a reply email and no further contact will be made.  

Please feel free to contact me or my advisor with any questions or concerns.  

Jeanne-Marie Tapke RN, MSN, Doctorial Candidate  
University of Cincinnati College of Nursing  
859-750-4851 (cell) jmtapke@fuse.net  

Susan Kennerly, RN, PhD, Faculty Advisor  
University of Cincinnati College of Nursing  
513-558-0310 susan.kennerly@uc.edu
Appendix G

Follower Reminder Email Communication
To: Participants.
Subject: research participation
Date: One week after original request twice or until receipt of questionnaire

This is a follow-up to an email I recent requesting your participation in an online questionnaire related to the study of leadership development. Your perspective to understanding the relationship between leadership styles of executive nurse leaders and coaching behavior is valuable. Please participate in the study by clicking on ______ and taking the confidential survey.

Participation is voluntarily. You maintain the right not to answer or respond to specific questions on the survey or to stop participating at any time. You are free to withdraw from the study without fear of penalty or negative consequences. If you are not interested in participating in this research please indicate this in a reply email and no further contact will be made.

Please feel free to contact me or my advisor with any questions or concerns.

Jeanne-Marie Tapke RN, MSN, Doctorial Candidate
University of Cincinnati College of Nursing
859-750-4851 (cell) jmtapke@fuse.net

Susan Kennerly, RN, PhD, Faculty Advisor
University of Cincinnati College of Nursing
513-558-0310 susan.kennerly@uc.edu
Appendix H

Thank You for Participation Email
To: Participants.
Subject: research participation
Date: upon completion of the survey

Thank you for your participation in this research study. Your authentic perspective from the practice setting is invaluable to advancing nursing knowledge related to nursing leadership.

You will be contacted when the results are available.

With appreciation,

Jeanne-Marie Tapke RN, MSN
Doctoral Candidate
University of Cincinnati
College of Nursing
859-331-3808 (office)
589-331-8198 (home)
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Susan Kennerly, RN, PhD
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Appendix I

Access to Results
To: Participants.
Subject: research results
Date: upon completion of the analysis of results

Thank you for your participation in the leadership research study earlier this year. The results are available on my web site, http://www.tapkesolutions.com. Click on Research in the right hand column. Your authentic perspective from the practice setting was invaluable in advancing nursing knowledge related to nursing leadership. Please fell free to contact me with any questions or concerns.

With appreciation,

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Appendix J
Histograms
Follower Total Transformational Score

Mean = 15.33
Std. Dev. = 3.468
N = 302

Follower Total Transactional Score

Mean = 5.41
Std. Dev. = 1.159
N = 302
Leader Total Transformational Score

Leader Total Transactional Score