

AN EVALUATION OF THE RELATIONSHIP OF NURSING SCHOOL
ADMINISTRATORS' LEADERSHIP FRAME ORIENTATION TO FACULTY
PERCEPTIONS OF JOB SATISFACTION AND LEADERSHIP EFFECTIVENESS

A Dissertation
presented to
the Faculty of the Graduate School
at the University of Missouri-Columbia

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

by
BRENDA CRAIG HIGGINS
Dr. Joe F. Donaldson, Dissertation Supervisor

August 2008

The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

AN EVALUATION OF THE RELATIONSHIP OF NURSING SCHOOL
ADMINISTRATORS' LEADERSHIP FRAME ORIENTATION TO FACULTY
PERCEPTIONS OF JOB SATISFACTION AND LEADERSHIP EFFECTIVENESS

Presented by Brenda Craig Higgins,

a candidate for the degree of doctor of education,

and hereby certify that, in their opinion, it is worthy of acceptance.

Professor Joe Donaldson

Professor Jay Scribner

Professor Bradley Curs

Professor Jennifer Hart

Professor Kimberly Hoffman

DEDICATION

This project is dedicated in remembrance of my parents, Harvey and Corrine Craig. Though they had little formal education, they instilled the value of education in their children. Their memory inspires me daily.

Also, I'd like to dedicate the project to my soon-expected grandson, who I know will provide me with unparalleled enjoyment in the future.

ACKNOWLEDGMENTS

With a deep sense of gratitude, this writer wishes to acknowledge indebtedness to those who have made invaluable contributions to this lengthy and sometimes exhausting endeavor.

Generous appreciation to my committee members, especially my advisor, Dr. Joe Donaldson, who never gave up on me despite long periods of inactivity; and Dr. Brad Curs, whose statistical guidance was invaluable. Thank you, also, to the members of my northeast Missouri cohort whose successes in the dissertation process gave me the boost of confidence that I needed. A big thank-you, also, goes out to my friend, Christina Davis, who cheerfully, but diligently, proofread and copyedited for many hours.

Thanks also to my husband for the patience exhibited while I completed this project. Also, acknowledgment goes to my son and daughter for being my greatest joys and the personal life achievements of which I am most proud.

Also appreciation is extended to Truman State University, where I received my undergraduate education, and have spent the majority of my adult life as a faculty member and member of the professional staff – a big thank you for instilling the liberal arts perspective – openness to diverse thought and a love of life-long learning.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	ii
LIST OF TABLES.....	vii
LIST OF FIGURES.....	ix
ABSTRACT.....	x
Chapter	
1. INTRODUCTION.....	1
Background of the Study	
Significance of the Problem	
Purpose of the Study	
Research Questions	
Theoretical Framework: Cognitive Complexity in Organizational Leadership	
Operational Definitions	
Assumptions	
Summary	
2. REVIEW OF THE LITERATURE.....	16
Theoretical Foundations of Leadership	
Trait theory	
Behavioral theory	
Contingency theory	
Power and influence theories	

Bolman and Deal's Meta-theory	
Cognitive Complexity and Leadership Behavior	
Bolman and Deal's Frame Theory	
Leadership Effectiveness and Cognitive Complexity	
Job Satisfaction	
Job Satisfaction of Nursing Faculty	
3. RESEARCH DESIGN AND METHODOLOGY.....	49
Introduction	
Research Design	
Variables	
Population and Sample	
Research Questions	
Data Collection and Instrumentation	
Leadership Orientations Instrument (Other)	
Abridged Job Description Index and Abridged Job in General	
Data Analysis	
Limitations	
Summary	
4. FINDINGS.....	67
5. DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS.....	101
Summary of the Study	
Findings	

Research Question 1	
Research Question 2	
Research Question 3	
Research Question 4	
Research Question 5	
Research Question 6	
Limitations	
Discussion	
Conclusions	
Recommendations and Implications	
Recommendations for Future Research: Qualitative Studies	
Implications for Practice	
REFERENCES.....	129
APPENDIXES.....	143
A. Leadership Orientations (Other) Questionnaire	
B. Permission to Use Leadership Orientations Instrument	
C. Copyright Restrictions on Publication of JDI/JIG Scales	
D. Use of JDI/JIG	
E. Selected Portions of Internet Survey Instrument	
F. Approval to Survey from CCNE	

G. Administrator Participation Request Letter

H. Faculty Participation Request Letter

VITA.....157

LIST OF TABLES

Table	Page
1. Years of Employment at Current Position and Prior Full-Time Faculty Experience	72
2. Faculty Perceptions of Favored Frame Usage by Nursing School Administrators	74
3. Endorsement of Frame Use by Nursing School Administrators as Perceived by the Nursing Faculty	76
4. Faculty Perceptions of Frame use by Nursing School Administrators	77
5. Frequency Distribution by Leadership Frame Classification	79
6. Expected and Calculated Crosstabulations for Leadership Frames And Leadership Effectiveness Scores	81
7. Chi-Square Test of Independence: Favored Frame Choice and Perceptions of Administrative Leadership Effectiveness.....	82
8. Analysis of Variance Between Leadership Frames and Leadership Effectiveness.....	83
9. Tukey HSD for Leadership Effectiveness Related to Favored Frame Use	83
10. Chi-Square Test of Independence: Favored Frame Choice and Nursing Faculty General Job Satisfaction	85
11. Analysis of Variance Between Favored Frame of Administrator And General Job Satisfaction	86
12. Chi-Square Test of Independence: Favored Frame Choice and Nursing Faculty Satisfaction with the Supervisor	86
13. Analysis of Variance Between Favored Frame of Administrator And Satisfaction with the Supervisor.....	87
14. Tukey HSD for Satisfaction with Supervisor Related to Favored Frame Choice.....	88

15. Chi-Square Test of Independence: MFI & General Job Satisfaction	90
16. Analysis of Variance Between Administrator's MFI And General Job Satisfaction	90
17. Tukey HSD for General Job Satisfaction Related to Administrator's MFI Score	91
18. Chi Square Test of Independence: MFI & Satisfaction with Supervisor.....	92
19. Analysis of Variance Between Administrator's MFI & Satisfaction With Supervisor	93
20. Tukey HSD for Satisfaction with Supervisor Related to Administrator's MFI	93
21. Chi Square Test of Independence: MFI & Evaluation of Leadership Effectiveness	94
22. Expected and Calculated Crosstabulations for MFI and Leadership Effectiveness	95
23. Analysis of Variance Between MFI & Leadership Effectiveness	97
24. Tukey HSD for Leadership Effectiveness Related to Supervisor MFI	98

LIST OF FIGURES

Figure	Page
1. Relationship Between Variables	54

AN EVALUATION OF THE RELATIONSHIP OF NURSING SCHOOL
ADMINISTRATORS' LEADERSHIP FRAME ORIENTATION TO FACULTY
PERCEPTIONS OF
JOB SATISFACTION AND LEADERSHIP EFFECTIVENESS

Brenda Craig Higgins

Dr. Joe F. Donaldson, Dissertation Supervisor

ABSTRACT

The purpose of this study was to determine which of Bolman and Deal's (1997, 2003) identified four frames were favored and consistently utilized by nursing school administrators and whether multi-frame usage by administrators is associated with faculty members' perceptions of job satisfaction and leadership effectiveness. Frame utilization and leadership effectiveness of nursing program administrators, as perceived by the administrators' faculty members, was measured with Bolman and Deal's Leadership Orientations Instrument (Other). The abridged Job Descriptive Index and companion abridged Job in General Scale were used to measure faculty satisfaction.

The structural frame was identified as the most favored frame of the administrators, followed respectively by the human resource, the political, and the symbolic frames. The administrator-favored choices of the human resource and symbolic frames were associated with higher and similar mean leadership effectiveness ratings and also with higher mean satisfaction with supervisor scores. No statistical mean difference was shown for general job satisfaction between the various frame choices.

Most nursing school administrators were identified as using none of the 4 frames consistently, while the second highest grouping of administrators was those classified as all 4-frame users. The third highest group was the single-frame users, followed by the 3-frame users, and lastly, the dual frame users.

Statistically significant relationships were found between the multi-frame index score of administrators and both general job satisfaction and satisfaction with the supervisor. Administrators with multi-framing capacity also had significantly higher means for leadership effectiveness than did the leaders with no-frame or single frame usage.

CHAPTER 1: INTRODUCTION

*“Leadership in a nursing education program
is much like a trip to the ocean during violent weather.”*

(Carl Christensen, 2004, p. 512)

Background of the Study

Professional nursing education faces innumerable challenges at the onset of the twenty-first century (National League for Nursing [NLN], 2005). Nursing scholars warn that the past may be of little help in dealing with the future as major paradigm shifts in both health care delivery and academia are predicted (NLN, 2003). Changing demographics, a market-driven economic policy, fast-paced technological advancements, and the knowledge explosion are all contributing to an environment of constant and rapid change in health care. The nursing profession’s contract with society demands that the profession be responsive to these changes (Lindeman, 2000).

Several critical issues threaten nursing education’s ability to meet the demands facing the profession, including the following: declining enrollments of high-ability students (Corcoran, 2006), growing faculty shortages resulting from the aging of current faculty, noncompetitive salaries, unreasonable classroom and clinical responsibilities (Trossman, 2002), and the mismatch between clinical practice and promotion and tenure requirements. These major issues threaten not only nursing education, but through an obvious relationship, nursing practice and the entire nursing profession. Effective

leadership will be crucial in developing both short- and long-term solutions for the profession (Trossman).

Unfortunately, many administrators in higher education (Austin, Ahearn, & English, 1997; Hecht, 2006; Ruben, 2006), generally, and nursing education (Kenner, Pressler, & Loving, 2007; Pressler & Kenner, 2007; Ryan & Irvine, 1996), specifically, have no formal leadership education or training – unlike their colleagues in business and many other fields. As administrators of nursing programs, referred to synonymously in this study as Program Directors, Nursing Deans, or Nursing Department Chairs, depending upon the administrative structure of the university (Mosser, 2000), these educational leaders face unique burdens because academic faculty “perpetuate the fantasy” that they do not need leadership (Austin, et al., 1997, p. 2).

Lack of Leadership Preparation

Since few nursing program administrators or other professional school deans have been trained in administration or leadership, their expertise lies in their particular academic discipline. They are generally selected for leadership roles based on records of accomplishment in teaching, research in their discipline (Austin et al.), or simply as a courtesy awarded for longevity (Ryan & Irvine, 1996). For example, Ryan & Irvine’s study of 245 deans and directors found that about two thirds of the nursing leaders were not formally academically prepared in administration and received no mentoring for the job role. In fact, one published dean openly speculated that many deans, himself included, “stumbled into” the position and admitted that his preparation for success in academia was limited to his years “as a student and some experiences as an adjunct instructor” (Christensen, 2004, p. 512). Bright and Richards (2001) described the most

common trajectory to deanship as the accidental tourist – leaders who begin as faculty, progress to departmental administration or faculty governance roles, and then to the deanship.

Chairs, directors, and deans are positioned as middle managers between faculty and higher institutional administration (Austin et al., 1997; Buller, 2007). McKeachie (1972) provides a rich description of faculty colleagues' attitudes toward a fellow colleague who has accepted the departmental chair position. He states that their attitude is “much like that of nuns toward a sister who moves into a house of prostitution” (p. 43). Faculty coworkers joke about their colleague “going to the dark side,” but Hecht (2006) believes there to be an underlying “seriousness of intent” (p. 1).

Despite the lack of collegial support and leadership preparation, and the generally unacknowledged need for leadership abilities and skills, these middle managers are burdened with a myriad of complex leadership responsibilities, including (but not limited to): promoting the vision articulated by upper management (Buller, 2007), management of professional relationships, determination of program goals and objectives, policy-making and analysis, program development and evaluation, faculty mentoring and advocacy, mediation between administration and faculty (Austin et al., 1997), strategic planning, mission development, salary decisions, public relations, and personnel management and training (Fagin, 1997). According to Tucker (1984), academic leaders may have up to 50 different functions and responsibilities as expectations of their role requirements and may even assume upwards of 28 possible roles in their daily duties. Complicating the job even further is the fact that no two positions are completely alike.

The administrative role in one institution can vary significantly “in degree if not in kind of responsibility” from the same position in any other college or university (Gould, 1964, p. 41).

Significance of the Nursing Faculty Shortage Problem

Nursing education is in crisis in the United States (MacDonald, 2007). Despite nationwide shortages of practicing nurses and a projected shortfall of 1 million nurses by the year 2020 (Fox, 2007), qualified students are being denied admission to baccalaureate nursing programs due to a rapidly dwindling supply of nursing faculty. The American Association of Colleges of Nursing (AACN) reported in 2003 that more than 11,000 qualified applicants were denied admission, due in part to lack of faculty (Bellack, 2004). According to a 2005 NLN press release, the numbers had grown to over 147,000 qualified applicants rejected. Berlin, Stennet, and Bednash (2003) reported that 41.7 percent of nursing programs cited faculty shortages as a significant reason for not accepting all qualified applicants. At the beginning of the 2006-2007 academic year, 7.9% of teaching positions in nursing were unfilled (MacDonald, 2007). According to Pricewaterhouse Coopers’ Health Research Institute (Fox, 2007), while applications to nursing programs have risen, “the number of students denied admission has grown six fold since 2002, mostly because of a shortage of instructors” (p. 1).

Nursing schools face serious barriers that could potentially jeopardize the satisfaction of the faculty, resulting in difficulties in both recruitment and retention of faculty. Antoinette Hays, director of nursing at Regis College in Weston, Massachusetts, noted that nurses with top training in the field can earn more than \$100,000 a year in a clinical setting, while the same nurses would earn closer to \$60,000 to \$70,000 in

academia (MacDonald, 2007). In addition to the lower salaries in comparison to other employment opportunities and competition from the clinical and private sectors, long work hours, demanding work loads, and the high stress associated with the job are cited as reasons for difficulty in attracting and retaining faculty (American Association of Colleges of Nursing [AACN], 2005).

Full-time faculty in all academic disciplines express frustration with the multiple demands on their time: expectations to publish texts and journal articles, provide community service (Gormley, 2003), seek grants, conduct research, advise students, update curricula, develop new courses, and maintain expertise in technology and knowledge of their specialty (Berberet & McMillin, 2002). Furthermore, today's faculty members are also expected to develop proficiency in distance learning strategies and methods (AACN, 1999; Potempa, 2001).

Nursing faculty members, however, have additional expectations that are unique to the clinical disciplines. They are expected to maintain clinical practice and expertise and supervise students' practice in clinical agencies, where the responsibility for caring for greater numbers of increasingly ill patients adds to their stress (AACN, 2005). Several authors report increased stress (Oermann, 1998), emotional exhaustion (Fong, 1993), burnout (Brendtro & Hegge, 2000; De Young & Bliss, 1995), and early retirement (AACN, 1999) among nursing faculty. Gormley (2003) concludes that job dissatisfaction results from numerous role conflicts and its associated stress.

Job dissatisfaction has shown positive correlations with difficulties recruiting and retaining younger faculty (Brendtro & Hegge, 2000; DeYoung & Bliss, 1995; Ketefian, 1991) and with intents to leave positions (Johnsrud & Edwards, 2001; Lee & Mowday,

1987; Mobley, 1977; Rosser, 2004). Conversely, job satisfaction has been closely associated with keeping qualified workers on the job and reducing turnover (Donohue, 1986; Gruneberg, 1979; McCloskey, 1974; Simpson, 1985). Schneider and Snyder (1974) performed a study to determine whether organizational climate and job satisfaction were distinct concepts and they determined that job satisfaction was more closely related to turnover of personnel than was climate. More recently, Donohue (1986) and Gormley (2003) have concluded that nursing schools with satisfied faculty should be better able to both recruit and retain qualified nursing faculty.

Importance of Nursing Leadership with Skills in Cognitive Complexity

Current literature confirms that effective leadership is one important predictor variable that has a positive correlation with nursing faculty satisfaction (Christian, 1986; Donohue, 1986; Gormley, 2003; Kennerly, 1989). In fact, in a meta-analysis of the nursing literature related to faculty satisfaction, Gormley concluded that “dean or chairperson behavior strongly influences nursing faculty job satisfaction” (p. 177), but added that further research addressing the variable of leadership and its relationship to faculty job satisfaction was needed.

Clearly, effective leadership for higher education in nursing is essential to resolve complex and longstanding issues associated with faculty satisfaction, recruitment, and retention. According to Birnbaum (1988), “Simple understandings lead to general rules to be applied in all situations; complicated understandings suggest that situations differ and that reliance on experiences of the past may prove dysfunctional” (p. 209). Unfortunately, as noted in the *Fourth Report of the Pew Health Professions Commission* (1998), leaders in health care have often “suffered by resisting change in the health care system” (p. 11).

Edward H. O'Neil of the Center for Health professions at the University of California in San Francisco predicted nursing will not be able to fully contribute to outcomes consistent with the reformed medical system's needs unless they are willing to address some of the current stumbling blocks (O'Neil, 1997). Bolman and Deal (1997) suggest that adherence to conventional ways of thinking "prevent seeing old problems in a new light or finding more promising tools to work on perennial challenges" (p. 5). The National League for Nursing, in the 2005 position statement, *Transforming Nursing Education*, stated "We can no longer rely on tradition, past practices, and good intentions" (p. 1). Continuing to do things in the same ways that they have always been done will logically produce the same ineffective results.

For long-term solutions, a clear vision of where the profession is going must be articulated (Wieck, 2003). Nursing education for the 21st century requires reform (Corcoran, 2006). Yet, according to Wieck (2000), a vision for the future of the nursing profession has not been clearly articulated by the profession's leaders. Deans have suggested that successful visionary leadership depends upon a person's ability to consider both internal and external factors when examining issues (Ryan & Irvine, 1996). Likewise, Bellack (2004) stated that we need to "refocus our lens" (p. 244) to solve the faculty shortage issue. That metaphor is continued by Starck, Warner, and Kotarba (1999), who studied deans of top-ranked graduate nursing schools to examine how they approached leadership issues into the next century, and who stated, "Like trifocal eyeglasses, in which different lenses are needed to see different dimensions clearly . . . nurses must be able to integrate input coming from various perspectives" (p. 265).

It is essential, therefore, that the leaders in nursing education develop stronger capacities to assess the current and complex issues and articulate a vision for nursing's future, in order to lead the profession forward and solve the nursing faculty shortage. According to the AACN (2003), "The time has never been more appropriate to look for new approaches that make more sense" (p. 11). Amey (2006) agrees, stating, "There is little doubt that the leaders who are needed to guide postsecondary institutions in tomorrow's complex environments have to think about their work differently than did their predecessors" (p. 6). The challenge for dramatic reform and innovation will demand "bold new thinking and action" (NLN, 2003). Affirmed in a 2005 Position Paper, the NLN states, "The practice environment is complex, and it demands new competencies of nurses that, in turn, demand transformation of nursing education programs and educational practices" (p. 2).

Bolman and Deal (1997) propose that leadership effectiveness is enhanced when leaders possess the ability to "reframe" organizational problems, thereby revealing expanded options and generating the possibility of creative solutions. Likewise, effective nursing education leaders need proficiency in the ability to reframe organizational problems through multiple perspectives. Nursing leaders with this skill may be better suited to meet the challenges of faculty shortages, job dissatisfaction, and other problems facing nursing education today.

Purpose of the Study

The purpose of this study is to determine which of Bolman and Deal's (1997, 2003) identified four frames are utilized and favored by nursing school administrators, and whether multi-frame usage by administrators is associated with faculty members'

perceptions of job satisfaction, satisfaction with the supervisor, and evaluations of administrative leadership effectiveness. Frame utilization and leadership effectiveness of program administrators, as perceived and reported by full-time faculty members, will be measured with Bolman and Deal's Leadership Orientations Instrument (Other) (see Appendix A). The abridged Job Descriptive Index (Revised) and its companion abridged Job in General Scale (Revised) will be used to measure faculty satisfaction.

Research Questions

Literature on leadership effectiveness, cognitive complexity, and faculty satisfaction suggest the following research questions:

1. Which of Bolman and Deal's (1997) identified four leadership frames do nursing faculty members perceive as the favored frame choice of their nursing school administrators?
2. How many frames do nursing school administrators use?
3. Is there a relationship between favored frame choice of nursing school administrators' (as measured by their nursing faculty members) and the faculty members' perceptions of the administrator's leadership effectiveness?
4. Is there a relationship between the favored frame choice of nursing school administrators' (as measured by their nursing faculty members) and the nursing faculty members' general job satisfaction or satisfaction with their supervisor?

5. Is there a relationship between the administrators' cognitive complexity (as measured by their multi-frame index score) and the nursing faculty members' general job satisfaction or satisfaction with their supervisor?
6. Is there a relationship between faculty perceptions of leadership effectiveness of nursing school administrators and the administrators' cognitive complexity (as measured by their multi-frame index score)?

Theoretical Framework

The concepts of cognitive and behavioral complexity in organizational leadership form the theoretical foundation for this study. Quinn (1991) explains that cognitive complexity has to do with how people think about a domain or problem. The extent to which an individual is able to perceive multiple dimensions and relationships determines the level of cognitive complexity of that individual. "A person with high cognitive complexity regarding a given phenomenon is a person who can see that phenomenon from many perspectives" (p. 14). Quinn suggests that cognitive complexity may be developed and enhanced when individuals experiment with opposing frames of reference.

Bolman and Deal (1997) use the metaphor of frames that are "both windows on the world and lenses that bring the world into focus" (p. 12) to depict the opposing perspectives described by Quinn. According to Bolman and Deal (1997), these frames are helpful mechanisms in both ordering experiences and determining action. Thus, organizational leaders who are able to reframe problems using four lenses – structural, human resources, political, and symbolic – have a more comprehensive understanding of the issues and a greater repertoire of options for action. Birnbaum (1988) agrees, stating,

“Only complicated understandings can see the many conflicting realities of complicated situations” (p. 209).

Operational Definitions

The following operational definitions were utilized throughout the study and the reporting of results:

1. *Nursing School Administrator*: The chief executive nurse officer of a baccalaureate and/or graduate school of nursing. The term encompasses titles such as dean, director, chair, head, and coordinator (adapted from AACN, 2003).
2. *Nursing Faculty Member*: An instructional faculty member who has no administrative title and who holds a full-time position as a professor, associate professor, assistant professor, or instructor in a Commission on Collegiate Nursing Education (CCNE) accredited baccalaureate or graduate nursing program (adapted from Mosser, 2000).
3. *Favored Frame*: The frame designated by the highest sum score on Section II (Leadership Style) of the Leadership Orientations Instrument (Other). The administrators’ favored frames are determined by faculty evaluation of leadership traits and behaviors – not by administrative self-report.
4. *Frame Endorsement*: Faculty members were said to endorse their nursing school administrators’ consistent use of a particular frame when they evaluated their administrator with mean scores for the frame subsets on Section I (Leader Behaviors) of the Leadership Orientations Instrument

(Other) at 4.0 or higher, representing mean frequency levels of *often* or *always*.

5. *Single frame administrator leadership style*: An administrator was identified with a single-frame leadership style when the MFI from Bolman and Deal's Leadership Orientations Instrument (Other) was calculated as 1. That one specific leadership frame was identified from the four possible frames as either structural, human resource, political or symbolic (adapted from Bolman & Deal, 1992).
6. *Dual or paired frame administrator leadership style*: An administrator was identified with a dual frame leadership style when the MFI from Bolman and Deal's Leadership Orientations Instrument (Other) was calculated as 2. The two specific leadership frames were identified from the four possible frames as either structural, human resource, political or symbolic (adapted from Bolman & Deal, 1992).
7. *Multi-frame administrator leadership style*: An administrator was identified with a multi-frame leadership style when the MFI from Bolman and Deal's Leadership Orientations (Other) was calculated as either a 3 or a 4. The three or four specific leadership frames were identified from the four possible frames as either structural, human resource, political or symbolic (adapted from Bolman & Deal, 1992).
8. *Leader effectiveness*: The perception of the nursing school administrator's leadership effectiveness as measured by the full-time nursing faculty members' responses to ratings on the Leadership Orientations (Other)

questionnaire asking subjects to rate *Overall effectiveness as a leader* on a scale from 1 (*low*) to 5 (*high*) (adapted from Bolman & Deal, Leadership Orientations (Other), 1990).

9. *General job satisfaction*: Workers' general, overall feeling about their job or job experiences relating to previous experiences, current expectations, or available alternatives; as measured by scores on the abridged Job in General Scale (adapted from Balzer, et al., 2000).
10. *Satisfaction with supervisor*: A worker's feeling of satisfaction with their supervisor as measured by the Satisfaction with the Supervisor specific facet of the job scale from the abridged Job Descriptive Index (adapted from Balzer et al., 2000).
11. *Cognitive complexity*: A particularly skillful way people make sense of what is going on around them. It requires individuals to have the ability to perceive a number of dimensions in a stimulus, rather than just one (adapted from Weick, 1979 and Del Favero, 2006). Subjects are considered more cognitively complex the higher their MFI (multi-frame index) score (Bensimon, 1991; Bolman & Deal, 1991).
12. *Multi-frame Index*: An indicator of cognitive complexity as measured through Bolman & Deal's Leadership Orientations Instrument, Section I: Leader Behaviors. An MFI score of 1 designates a respondent as single-framed, while a score of 4 indicates threshold-level use of all four perspectives (adapted from Bensimon, 1991 and Del Favero, 2006). The average score for each frame on Bolman and Deal's Leadership Orientations Instrument is calculated.

Scale values equivalent to, or greater than *often* (value = 4) set the threshold for a perspective as characteristic of the subject of study. Thus, the number of scales with a mean response value of 4.0 or greater defines the value of the Multi-frame Index.

Assumptions

The following assumptions were pivotal to this study:

1. Faculty member respondents will answer survey questions truthfully.
2. Faculty member respondents are capable of accurately discriminating the leadership behaviors of their administrative leader.
3. Nursing school administrators will agree to allow faculty members to participate in the study and will forward the introductory letter to all faculty members who meet the identified research criteria.

Summary

The ability to assess organizational problems using multiple perspectives provides potential for enhanced leadership. Nursing education faces a number of significant problems today that will require visionary leadership to overcome the inherent systemic organizational problems. The concept of cognitive complexity provides a structure from which to study nursing school administrators' leadership frame orientations and how they relate to faculty satisfaction and perceptions of leadership effectiveness.

Chapter 2 will provide more detail about the conceptual frameworks used in this study through a review of relevant literature on the theoretical foundations of leadership, leadership in higher education and in nursing, and the cognitive complexity of leaders in

relationship to frame usage. Additionally, relevant research on faculty satisfaction, and the correlation between faculty satisfaction and leadership effectiveness will be presented.

CHAPTER 2: REVIEW OF LITERATURE

“Trying to understand leadership is a little bit like watching a parade. What you see depends on where you stand.”

(Daniel Duke, 1998, p. 165)

This study explores baccalaureate and graduate nursing faculty members’ perceptions of their nursing school administrators’ use of Bolman and Deal’s (1984, 1991, 1997) leadership frames, and the relationship of the administrators’ frame usage to faculty members’ job satisfaction, satisfaction with their supervisors, and perceptions of administrative leadership effectiveness. As a basis for greater understanding of the study, a review of the literature has been completed. The first section examines the literature related to the independent variable, leadership. Leadership is explored through its theoretical foundations and then through its relationship to cognitive complexity and leadership behaviors. Bolman and Deal’s frame theory is reviewed, as is other literature supporting the relationship between leadership effectiveness and cognitive complexity of leaders. Lastly, the dependent variable, job satisfaction, is examined with the literature providing evidence of a positive correlation between leadership effectiveness and job satisfaction and a negative correlation between job satisfaction and intent to leave the current position.

Theoretical Foundations of Leadership

Defining the concept of leadership and identifying its components has been a challenge for researchers over the years. Bennis (1959) asserted that “more has been

written and less is known about leadership than about any other topic in the behavioural sciences” (p. 259-60). Thirty years later, Bass (1990) in a comprehensive review of the leadership literature, concluded that “there are almost as many definitions of leadership as there are persons who have attempted to define the concept” (p. 11). Rost (1991), agreed, avowing that leadership is “one of the most observed and least understood phenomena on earth” (p. 4).

Over the decades, leadership has been defined in terms of “traits, behaviors, influence, interaction patterns, role relationships, and occupation of administrative position” (Yukl, 1998, p. 2). Schein (1992) broadly defined leadership as the “creation and management of culture” (p. 1). Expanding on the cultural basis of leadership, Bolman and Deal (1997, 2001) proposed that leaders promote *soul* within the organizational culture, bringing meaning to the workplace.

Yukl (1998) concluded that, despite diversity among theoretical definitions, most agree that leadership involves a process of “intentional influence exerted by one person over other people to guide, structure, and facilitate activities and relationships in a group or organization” (p. 3). Also, there appears to be consensus with Bryman (1986), who concluded that “leadership matters, that it is important to the realization of a desirable state of affairs” (p. 1).

At least six central research approaches to studying leadership have evolved over the past century. These approaches include trait theory, behavioral theory, contingency theory, power and influence theory, cognitive theory, and symbolic and cultural theory (Bensimon, Neuman & Birnbaum, 1989).

Trait Theory

At least as far back as Aristotle, academics proposed the “great man theory of leadership” (Hoy & Miskel, 1982). According to Aristotle, in *Politics, Book I*, Chapter 5, “From the hour of birth, some are marked out for subjection, others for rule” (as cited by Hoy & Miskel, 1982, p. 221). Some of the earliest experimental and theoretical studies on leadership were conducted in the 1930s and were concerned largely with investigating the personal traits of leaders (Bryman, 1986; Yukl, 1998). According to General Archibald Wavell in a 1941 edition of *The Times*, “No amount of learning will make a man a leader unless he has the natural qualities of one” [*sic*] (as cited in Bryman, 1986, p. 18). These quotes illustrate the primary assumption of the great man or trait theory—that leaders possess personal characteristics that differentiate them from their followers and uniquely suit them for the challenges of leadership (Bensimon, Neumann, & Birnbaum, 1989; Hoy & Miskel).

According to Stodgill’s 1948 review of 124 trait studies, five broad types of trait categories emerged from the literature of 1904-1947. The first category, capacity, included the traits of intelligence, judgment, originality, and verbal facility. Achievement, the second category, included scholarship and knowledge among identified traits. The third category, responsibility, comprised characteristics such as initiative, the desire to excel, and self-confidence. The fourth category, participation, included adaptability and cooperation; and the last category, status, focused on traits such as popularity and socioeconomic position (Hoy & Miskel, 1982).

But Stodgill’s (1948) early review failed to provide support for trait theory when it became apparent that personal traits alone, without consideration of “relevant

relationship to the characteristics, activities, and goals of the followers” (p. 64), were insufficient to support the basic premise of trait theory—that a person must encompass a certain set of traits in order to succeed as a leader (Yukl, 1998). Stodgill’s pessimistic review temporarily deterred further research on trait theory (Yukl, 1998).

In 1974, however, Stodgill updated his literature review. In studying 163 trait studies conducted from 1949 to 1970, he concluded that possession of certain traits could, in fact, increase the likelihood of leader success. He still cautioned that leadership effectiveness was affected by situational influence; that is, a leader with one set of traits might be particularly effective in one situation and not at all effective in another (Yukl, 1998).

Behavioral Theory

In the late 1940s, and perhaps in response to Stodgill’s first review, the leadership research experienced a shift away from trait theory and toward the study of leadership behaviors or styles (Bryman, 1986). Behavioral theorists sought to determine exactly what it is that leaders *do* that enables them to successfully accomplish organizational goals. They examined patterns of activity, managerial roles, and behavior categories of leaders (Bensimon et al., 1989). The research objective was to identify the most effective leadership behavior, based on an assessment of the types of behavior used by individuals in leadership situations (Van der Veer, 1991). Through the descriptive research of behavioral theorists, four general activity patterns were developed. These broad categories of activity patterns include decision-making, relationship building and maintenance, information processing, and influencing of others (Yukl, 1998).

The two major pioneering studies of significance in behavioral leadership research were the Ohio State Leadership Studies and the Michigan Studies (Bryman, 1986; Yukl, 1998). Factor analysis from the questionnaire research in the Ohio State studies suggested that leadership behavior could be classified into two broad, relatively independent categories of “consideration” and “initiating structure.” *Consideration* was described as the degree to which the leader showed concern and support for subordinates. *Initiating structure* was the name given to explain the degree to which the leader defined and structured both his and his subordinates’ roles to meet group goals (Yukl). Based on results from these initial studies, several well-known research questionnaires have been developed to measure consideration and initiating structure leader behaviors. These tools include the Leader Behavior Description Questionnaire (LBDQ), the Supervisory Behavior Description Questionnaire (SBDQ), the Leader Opinion Questionnaire (LOQ), and the Leader Behavior Description Questionnaire, Form XII (LBDQ XII) (Bryman; Yukl).

In the Michigan studies, researchers took a different approach than the Ohio group when studying leadership behavior. Structured interviews (as opposed to the fixed-choice questionnaire responses in the Ohio studies) were utilized to collect data about relationships among leader behavior, group processes, and measures of group performance (Bryman, 1986; Yukl, 1998). Objective measures of group productivity classified leader behavior as relatively effective or ineffective. Three types of leadership behaviors were shown to differentiate effective from ineffective leaders. The three categories were task-oriented behavior, relations-oriented behavior, and participative leadership. Task-oriented behavior was similar to the initiating structure category from

the Ohio studies and included coordination and technical activities. Relations-oriented behavior was comparable to the consideration category in the Ohio studies, both with attention to subordinate-supportive leadership characteristics. The third category, participative leadership, described leaders who made use of group supervision while still maintaining leader accountability (Yukl).

Contingency Theory

Critics of behavioral leadership research contend that the approach is simplistic (Bryman, 1986; Yukl, 1998). Yet the foundations from early trait and behavioral theory led to a more complex line of behavioral research in the 1940s and 1950s that proposed that effective leadership required adapting leader styles to situational factors (or contingencies), such as the nature of the task performed or the nature of the external environment (Bensimon et al., 1989).

Some of the more prominent contingency theories include Path-Goal Theory, Situational Leadership Theory, Multiple Linkage Model, LPC Contingency Model, Cognitive Resource Theory, and Normative Decision Theory. Contingency theories have provided some insights into effective leadership under differing situations (Yukl, 1998). Yukl describes conditions where specific leader behaviors can increase subordinate satisfaction and performance and presents guidelines for leaders that result from contingency literature. These guidelines include providing more support or direction to individuals working on stressful tasks, those with minimal expertise, and those with interdependent roles; monitoring critical tasks or unreliable personnel closely; and using more planning for lengthy, complex tasks (Yukl). However, critics of contingency theories claim that the research lacks accurate measures and relies on weak research

designs that could permit faulty conclusions regarding direction of causality (Korman & Tanofsky, 1975). Another criticism of contingency theory is that it fails to provide general principles to guide developing leaders (Yukl).

Power and Influence Theories

Yukl (1998) asserts that the fundamental nature of leadership involves the use of influence over others. Power and influence theories are of two major varieties—those that examine leadership in terms of influence that the leaders have on their subordinates (transformational leadership theory) and those that consider leadership in terms of mutual influence between leaders and followers (social exchange theory and transactional leadership theory) (Bensimon et al., 1989).

According to Bass (1985), transactional leadership relates to an exchange of desired needs – leaders have something that followers want. The leader-follower relationship depends upon interaction with different levels of motivation in achieving a common goal (Bass, 1981). Burns (1978) maintained that transactional leadership involved bargaining and that bargaining transactions make up the bulk of the relationship among leaders and followers. Tichey and Devanna (1996) propose that, though once effective in the era of non-existing competition, transactional leadership falters in the current age of accelerated innovation and change, and suggest that transformational leadership is much more aptly suited to that situation.

In transformational leadership, the leaders and subordinates engage with each other “in such a way that leaders and followers raise one another to higher levels of morality and motivation,” (Burns, 1978, p. 20) transcending immediate self-interests (Duke, 1998). According to Bass (1990), transformational leaders are role models for

others, serving as team-builders and people-developers. Yukl (1998) proposes that transformational leaders actively influence organizational culture and by strengthening or changing the culture of the organization, they also indirectly influence individual motivation and performance (Yukl).

Four distinct types of transformational leadership behaviors were identified by Bass (1990) and Bass and Avolio (1990). The first three, charisma (or idealized influence), intellectual stimulation, and individualized consideration arose from the original work of Bass (1985). The fourth transformational behavior, inspirational motivation, was an outcome of theory revision by Bass and Avolio. *Idealized influence* is a term coined by Bass to describe leader behavior that resulted in subordinate identification with the leader. Behavior that increased awareness and perspectives for problem solving was identified as *intellectual stimulation*. Supporting and coaching behaviors of the leader characterized *individual consideration*. *Inspirational motivation* was defined as transformational leadership behavior that communicated an appealing vision (Yukl, 1998).

Bolman & Deal's Meta-Theory: A Multi-Perspective View of Organizations

Though the wealth of leadership theories provides excellent frameworks for various research designs, many have suggested that the conceptual pluralism can result in confusion for individual organizational leaders who are trying to apply the concepts to their roles as organizational leaders. Bolman and Deal wrote *Modern Approaches to Understanding and Managing Organizations* in 1984 to present a meta-theory (Cantu, 1997), which combined the four major social science schools of thought into one comprehensive leadership theory. The theory utilizes a cognitive approach, describing

concepts of organizing theories known in the cognitive complexity and social science literature as “schema, schemata, representations, cognitive maps, paradigms, social categorizations, attributions, (and) implicit organizing theories” (Bolman & Deal 2003, p.12). These different labels, according to Bolman & Deal (1991):

. . . share an assumption that individuals see the world in different ways because they are embedded in different world views. Because the world of human experience is ambiguous, frames of reference shape how situations are defined and determine what actions are taken (p. 2).

Four specific frames that are useful in assisting managers and leaders in solving complex problems were first identified in the 1984 work and remain in later editions in 1990 and 2003.

Cognitive Complexity and Leadership Behavior

Cognitive complexity is a concept that provides support for Bolman and Deal’s (1997) contention that those who are able to view problems from several frames are more effective as organizational leaders. Del Favero (2006) defines cognitive complexity as a “particularly skillful way people make sense of what is going on around them” (p. 284) and asserts that individuals employing cognitive complexity are “capable of perceiving a number of dimensions in a stimulus, rather than just one” (p. 284). Cognitively complex leaders have a more comprehensive understanding of the issues and a greater repertoire of options for action (Bolman & Deal, 1997).

Cognitive development in adulthood centers on the ability to transform meaning structures. Meaning-making, or learning, is shaped by each individual’s frame of reference (Mezirow, 1994). Influenced by past experiences, these frames of reference

organize to form patterns of personal knowledge (Sims, Gioia, & associates, 1986) and impact one's analysis of situations or problems by generating a perspective (Goffman, 1986) or meaning for uncertain events (Sims et al.) They represent a set of assumptions for, or a way of thinking about, various phenomena. Frameworks also allow people to fill in missing data by supplying default options (Sims, Gioia, et al.)

Though these frameworks or models can provide a perspective on a complex reality, it is also true that one's perspective can be "wrong ... out of touch, inappropriate" (Goffman, 1986, p. 26). A problem exists when one is blinded to many aspects when only one frame of reference is used to analyze complex problems (Quinn, Faerman, Thompson, & McGrath, 2003). As Stephen Covey (1989) suggests, "As clearly and objectively as we think we see things, we begin to realize that others see them differently from their own apparently equally clear and objective point of view" (p. 28). Additionally, according to Cohen and March (as cited in Birnbaum, 1988), behaving in a style suggested by one model can be dysfunctional when others in the organization perceive a different model.

Quinn (1991) explains that cognitive complexity has to do with how people think about a domain or problem, and that the extent to which an individual is able to perceive multiple dimensions and relationships determines the level of cognitive complexity of that individual. Those who are cognitively complex read situations and make sense of their perceptions by sorting and categorizing stimuli into various cognitive frameworks (Del Favero, 2006). Cognitive complexity, then, requires that practitioners "deconstruct social situations and events to best understand what is happening" (Del Favero, p. 284). Quinn (1991) describes this process using the terms differentiation and integration.

Complexity, says Quinn, is “the degree to which a domain is differentiated and integrated when a problem is encountered” (p. 5). *Differentiation* refers to the use of bipolar scales and *integration* with the relationship among various dimensions (Quinn, 1991). “A person with high cognitive complexity regarding a given phenomenon is a person who can see that phenomenon from many perspectives” (Quinn, p. 14). Quinn suggests that cognitive complexity may be developed and enhanced when individuals experiment with opposing frames of reference. Contradictions come together in a “fluid whole” (Quinn, p. 4) for the cognitively complex individual.

Goffman (1974) first identified frame analysis as a method of organizing experience. A substantial body of work followed from a number of disciplines, to explain these organizing phenomena. Fiedler (1982), Fiske and Dyer (1985), Hastie (1981), Lord and Foti (1986), Neisser (1976), and Taylor and Crocker (1981) used the terms *schemata* or *schema theory* to describe the variety of perspectives. *Representations* is the term utilized by Frensch and Sternberg (1991), Lesgold and Lajoie (1991), and Voss, Wolfe, Lawrence, and Engle, (1991). Tolman first created the label *cognitive map* in 1948, which was also later used by Weick and Bougon (1986). Gregory (1983) and Kuhn (1970) discussed *paradigms*. Cronshaw (1987) used the term *social categorizations* and Brief and Downey (1977) called these perspectives *implicit theories*. Senge (1990) used the term *mental models*, while Quinn, Faerman, Thompson & McGrath (2003) simply used the term *models*. Bolman and Deal (1997) describe these perspectives as *frames* that are “both windows on the world and lenses that bring the world into focus” (p. 12). According to Bolman and Deal (1997), frames are helpful mechanisms in both ordering experience and determining action.

Regardless of the label used to describe the concept, there appears to be consensus that awareness of multiple frames of reference heightens insight, and that the ability to examine situations from multiple perspectives results in cognitive complexity that enhances one's abilities in organizational leadership. According to Birnbaum (1988), "Only complicated understandings can see the many conflicting realities of complicated situations" (p. 209). The ability to call upon more than one model facilitates the capacity to see and evaluate alternatives, enhances choice, and increases leader effectiveness (Senge, 1990). Bolman and Deal (1997) suggest that organizational leaders who are able to reframe problems using four lenses – structural, human resources, political, and symbolic – have a more comprehensive understanding of the issues and a greater repertoire of options for action.

Unfortunately, individuals' frameworks are often tied to identity and emotions (Quinn, Faerman, Thompson & McGrath, 2003) and, according to Goffman (1974), considerable resistance can result when people are expected to change their "framework of frameworks" (p. 28-29). But, Quinn, et al., state that when one comes to appreciate many frameworks, learning has taken place at the conceptual level and cognitive complexity has increased as it relates to managerial leadership.

Streufert and Swezey (1986) elaborate on the concept of cognitive complexity, saying it:

. . . has been associated with more moderated attitudes, openness to disconfirming information and adjustment in thinking, more effective discernment of the intents and strategies of others, better interrelationship of decisions, more

appropriate strategy development, and more flexibility in consideration of distant goals (as cited in Quinn, 1991).

Furthermore, Birnbaum (1988) links intuition with cognitive complexity.

Complex administrators “with a large repertoire of potential understandings and behaviors” (p. 212) have a greater potential for making accurate judgments than do simple administrators (Birnbaum, 1988). Hooijberg and Quinn (1992) built upon the concept of cognitive complexity, discussing behavioral complexity – “the ability to act out a cognitively complex strategy by playing multiple, even competing, roles in a highly integrated and complementary way” (p. 164).

Quinn (1991) thus describes a master manager as one who energizes both individual and collective performance by arriving at “ingenious” (p. xv) solutions to problems through consideration of two or more contradictory notions. New paradigms are discovered and synergy is achieved (p. 16). “Dualities and dichotomies disappear as polarities become one,” (p. 161) according to Quinn.

Morgan (1997) concurs, stating “Knowledge is a generative force that is capable of creating new potential” (p. 429). Morgan proposes that when leaders are unable to explore situations from a variety of perspectives, “they are not seeing what is really going on” and that “the complexity of organizational life is passing them by” (p. 350). Further, he suggests that effective leaders are better able to shape what happens in their organizations when they are skilled at “active reading that embraces different points of view” (p. 350). Bolman and Deal (1997) argue that unless leaders can “think flexibly about organizations and see them from multiple angles, they will be unable to deal with the full range of issues that they will inevitably encounter” (p. 379). More succinctly put,

“Leaders fail when they take too narrow a view of the context in which they are working” (p. 379).

Though many have contributed to the notions regarding how cognitive complexity in organizational life applies to the higher education setting, the most frequently cited are studies by Bensimon (1991), and Bolman and Deal (1991). Most recently, Del Favero (2006) has contributed to the educational literature. Mosser and Walls (2002) and Small (2002) have more recently added significant research to the body of knowledge in the nursing education literature.

Bensimon (1991) studied university presidents’ cognitive complexity as it helped them determine what was worthy of their attention. She found the use of multiple frames to be more common for university presidents than for those from public, independent, or community colleges. She concluded that the more complex the environment, the greater the tendency toward the use of multiple-frame thinking.

Bolman and Deal conducted both qualitatively and quantitatively designed studies to examine how educational and other leaders perceive their world. The qualitative research used narratives to determine which, and how many, frames were used by the leaders. According to Bolman and Deal, these studies were particularly effective at getting at the “subtleties of how leaders think and how they frame their experience” (1991, p. 5). Factor analysis produced results consistent with frame theory (Bolman & Deal, 1991, 1992). Multiple samples were used – including U. S. college presidents, higher education senior administrators, central office administrators, school administrators, superintendents, and school principals from the Republic of Singapore – to analyze and code responses into the frame schema. All of the samples demonstrated

leaders rarely use more than two frames and almost none used four frames. The studies also identified differences between university presidents and other administrators. The presidents most frequently used the human resource frame, and were less likely to employ the structural frame. They were much more likely than either of the other administrative groups to use the symbolic frame (Bolman & Deal, 1991). Context was also found to be significant, with Americans more impacted by politics than Singaporeans, and with university administrators more influenced by politics than other school officials (Bolman & Deal, 1991).

Bolman and Deal's quantitative investigations utilized the Leadership Orientations Instrument (LOI) to examine the relationship between the frames of administrative leaders and their constituents in higher education, schools, government and the private sector. On the one hand, from the quantitative data, the researchers found that the structural frame was the best predictor of managerial effectiveness but the worst predictor of effectiveness as a leader. The symbolic frame, on the other hand, was the worst predictor of effectiveness as a manager, but the best predictor of effectiveness as a leader. The human resource and political frames were both positively related to effectiveness as managers and leaders. Also, across all sectors, the political frame was usually a better predictor of both effective management and leadership than was the human resource frame. Similar results of studies reported by Bolman and Deal in 1991 were obtained. These studies confirmed the political and symbolic frames as the two best predictors of leadership effectiveness.

Bolman and Deal (1991) also studied the impact of gender on frame preference and concluded that there were virtually no significant differences between frame

preference of men and women administrators. Of the few differences found, they were not consistent with stereotypical prediction. A later study of 57 educational leaders and 535 of their subordinates reaffirmed the gender findings of Bolman and Deal (Thompson, 2000).

Mosser and Walls (2002), in a study examining the relationship between nursing chairpersons' leadership frame usage and organizational climate, found that the human resource frame was the single frame that faculty members perceived to be used most by their administrative nursing leader. The structural frame was the second most frequently identified frame, followed by the symbolic and political frames. They also found low, but statistically significant correlations between the various combinations of leadership frames of nursing chairs, organizational climate domains, and selected demographic variables.

In a study similar to Mosser and Walls (2002), Small (2002) studied the relationship between the leadership frames of nursing chairpersons (as perceived by the faculty) and the organizational effectiveness of nursing departments (as perceived by both the faculty and the chairperson). Interestingly, her results concurred with many of the findings of Mosser and Walls, including the finding that chairs are perceived most often by faculty members as using no frames; followed by all four frames, single frame, multi-frame and paired frame usage. Also congruent with Mosser and Walls results, Small found that the human resource frame was the most chosen frame of the single leadership frames, followed in order by the structural frame, symbolic frame, and the political frame. Small also found statistically significant relationships between the single frame and all four domains of organizational effectiveness and between the

organizational effectiveness scores of low versus high leadership frame scores. Small concluded that chairperson leadership affects the organizational effectiveness of nursing programs.

Del Favero (2006) examined the relationship between academic disciplines and the cognitive complexity of the academic deans' administrative behavior. She found that "one's cognitive complexity may be more related to the disciplinary composition of the administrative context and the extent to which academic deans are immersed in their discipline as a scholar, than to the inculcation of disciplinary ways" in doctoral training (p. 306). She concluded that one's academic discipline cannot be discounted as a possible factor in predicting the extent of cognitive complexity associated with the administrative behavior of academic deans and that faculty members' approach to administrative work may be influenced by their approach to scholarly work.

Bolman and Deal's Frame Theory

Bolman and Deal's leadership theory (1984, 1991b, 2003) was created to provide an opportunity for leaders to purposefully examine organizational problems from four major perspectives or frames. Frames are described by Bolman and Deal (2003) as:

. . . both windows on a territory and tools for navigation.

Every tool has distinctive strengths and limitations. The right tool makes a job easier, but the wrong one just gets in the way. One or two tools may suffice for simple jobs, but not for more complex understandings. Managers who master the hammer and expect all problems to behave like nails find organizational life confusing and frustrating. The

wise manager, like a skilled carpenter or a professional chef, wants at hand a diverse collection of high-quality implements. Experienced managers also understand the difference between possessing a tool and knowing how to use it. Only experience and practice bring the skill and wisdom to size up a situation and use tools well (p. 13).

Further, Bolman and Deal (1991, p. 4) suggest that when leaders lack the right tools (or the ability to “reframe” organizational issues and problems), “psychic prisons” result. In these psychic prisons, leaders confronted with problems “simply do more of what they know” (p. 4), which can be worse than doing nothing at all. Bolman and Deal (2003) define this failure to creatively explore multiple perspectives as managerial “cluelessness” (p. 6) and suggest that reliance on narrow models captures only a part of reality in organizational life. Frankly stated, leaders limit their potential when they take too narrow a view.

Bolman and Deal’s (2003) frame theory proposes to be a “defense against cluelessness” (p. 18), postulating that learning to use four frames for organizational analysis provides enhanced understanding and potential for more creative problem-solving. The four frames are rooted in both managerial practice and social science research.

The first frame, the structural frame, is based on assumptions whose roots come from concepts of social architecture and organizational design (Bolman & Deal, 2003) from the sociology literature (Bolman & Deal, 1991). Bolman and Deal (1997) use the metaphor of the factory or machine to describe this frame. The role of the leader is that of

a social architect. In the structural frame, organizations exist to achieve goals and objectives. Clear divisions of labor and specialization benefit the organization. The compatibility of individuals and units is ensured through effective coordination and control. Rationality is desired and necessary to develop structures that “fit” the organization. Structural deficiencies are corrected through analysis and restructuring (Bolman & Deal, 2003).

Formal roles, relationships (Cantu, 1997), goals and efficiency are emphasized as work is divided by creation of specialized roles, functions, and units, and then tied together through vertical and horizontal integration strategies (Bolman & Deal, 2003). The most effective type of structure for an organization will vary according to the individual organization, its technology, and the environment in which it operates. The effective organization defines “clear goals, differentiates people into specific roles, and coordinates diverse activities through policies, rules, and chain of command” (Bolman & Deal, 1991, p. 3). Bolman and Deal (2003) argue that organizations operating in stable environments require “less complex and more centralized structures” (p. 67), while organizations operating in turbulent, change-filled environments require more complex and flexible structures.

The second frame, the human resource frame, focuses on the relationship between people and organizations. The core propositions from this frame flow from the fields of both psychology and organizational behavior (Bolman & Deal, 1991). Leaders operating under the human resource frame believe that organizations exist to serve people, not the reverse, and that there is a mutual need between the organization and the people that make up the organization. Success in an organization is achieved when the fit between

the person and the organization is right. When the fit between the individual and the person is a mismatch or when the needs of the organization are met at the expense of the needs of its members, both the individual and the organization suffer (Bolman & Deal, 2003).

Effective leadership, when viewed through the human resource lens, values relationships and feelings and empowers individuals. Problems are usually viewed in interpersonal terms and solutions involve enhancing the fit between the person and the organization (Bolman & Deal, 1991). The metaphor for this frame is the family, a group where the primary concerns are human needs, skills, and relationships (Bolman & Deal, 1997).

The third frame, the political frame, borrows ideas from political science (Bolman & Deal, 1991) and stresses the interplay of power forces (Bolman & Deal, 2003). This frame views organizations as “alive and screaming political arenas that host a complex web of individual and group interests” (Bolman & Deal, 1997, p. 163). In the political frame, organizations are viewed as coalitions of diverse people and interest groups who have strong differences of values, beliefs, interests and views of reality. Conflict among members is inevitable as scarce resources are allocated through bargaining, negotiation, and positioning of power. The role of the leader in this frame is one of advocacy as power management is believed to be the most significant contributor to success (Bolman & Deal, 2003). Bolman and Deal use the metaphor of the arena or the jungle to describe the setting where conflicts exist and power plays are played out (Bolman & Deal, 1997).

The last frame, the symbolic frame, borrows heavily from the field of sociology, and also applies concepts from organizational theory and anthropology (Bolman & Deal,

2003). The symbolic frame is characterized by a “chaotic world in which meaning and predictability are social creations and facts are interpretative rather than objective” (Bolman & Deal, 1991). The metaphor best describing this frame is the theatre or carnival, where the role of the leader is to provide meaning, faith, and beauty (Bolman & Deal, 1997). A major assumption of the frame is that the value assigned to any event or situation is based more on an interpretation of the meaning of the event than on the actual facts of the occurrence, thus the same event can have multiple and even disparate meanings to various individuals within the organization. Effective leadership involves strategic use of myths, rituals, ceremonies and stories to assist individuals to achieve shared beliefs and values and create a common culture. Symbols are used to reduce confusion and decrease the ambiguity and uncertainty associated with an organization where members’ interpretations of reality can vary. Successful leaders often use charisma to instill organizational dedication and passion (Bolman & Deal, 2003). Problems arise when there is no clear vision for the organization. Solutions require the leader’s attention to, and manipulation of, culture and symbolism (Bolman & Deal, 1991).

Dunford and Palmer (1995) researched the usefulness of the multiple-perspectives approach through the perceptions of practitioners who had studied organizational analysis using a multi-perspective framework in their management programs. Seven concepts of usefulness were identified. The concepts included manageability, effectiveness, empowerment, perception, creativity, change, and freedom and prosperity. Ninety-eight percent of the respondents rated reframing as helpful or very helpful in understanding organizations and 78 percent believed that they analyzed situations differently than they had prior to their training in the multi-perspective approach. Eighty-nine percent believed

that this ability provided them with a competitive advantage in their organization.

Overall, practitioners identified clear benefits from their ability to use a multi-perspective approach.

There was support for enhancement of all seven identified concepts through multi-perspective approaches to organizational analysis; however, support for claims about manageability, effectiveness, perception, and creativity were stronger than were the claims for empowerment and freedom and prosperity. Respondents noted that constraints of a political or structural nature could not always be removed by reframing (Dunford & Palmer, 1995).

Another noteworthy result from the study was the effect that time, between the managerial training and the study, had on the respondents' abilities to cite specific actions taken in the light of reframing. Interestingly, only 28 percent of the respondents freshly out of their management program could cite specific actions. On the contrary, 48 percent of those who had two years between their multi-perspective training and the study were able to relate specific examples of actions taken in response to reframing.

Leadership Effectiveness and Cognitive Complexity

The organizational research literature purports a link between cognitive or behavioral complexity and effective leadership performance. Quinn (1988) was one of the first to relate cognitive complexity to the notion of leadership effectiveness. He demonstrated that progression through a four model framework (from a focus on rationality and structure to one of symbolism and politics) was consistent with transformation to excellence.

Similarly, in a study of middle managers in a Fortune 100 company, Denison, Hooijberg, & Quinn (1995) found that behavioral complexity, as assessed by the supervisor of the middle manager, was associated with the overall managerial effectiveness of the manager. Likewise, Hart and Quinn (1993) found that the ability to play multiple and competing roles produced better firm performance. Quinn, Spreitzer, and Hart (1992), demonstrated a relationship between behavioral complexity and managerial performance, charisma, and the likelihood of making improvements in the organization (as cited by Quinn, Faerman, Thompson, & McGrath, 2003). Birnbaum (1988) and Bensimon (1989) both concluded that university presidents who demonstrated cognitive complexity and were able to interpret institutional life through multiple perspectives were more likely to be rated highly for effectiveness by faculty. However, this finding only held true when the cognitive complexity of the presidents was measured by others, not by presidential self-evaluation (Birnbaum, 1992). Del Favero (2006) concluded that the literature would suggest that multi-frame thinking, or cognitive complexity, is a “requisite tool” (p. 285) for university leaders in a time when many believe the challenges presented to the leadership of higher education are greater than ever before.

Job Satisfaction

Job satisfaction has long been considered a significant construct for study to both employers and employees. Research on job satisfaction dates back almost a hundred years, with the earliest studies done in the 1920s. Traditionally, it was believed that job satisfaction resulted in positive work performance behaviors (Balzer et al., 2000). Early

researchers identified higher employee performance ratings by supervisors when employees were satisfied (Smith, Kendall, & Hulin, 1969).

Others have suggested, though, that positive employee behavior actually is the underlying *cause* of job satisfaction, providing evidence that productive behavior often produces rewards from the supervisor. These rewards, then, are likely to lead to greater levels of satisfaction. A third hypothesis is that job satisfaction is simply a side effect of behavior (Balzer et al., 2000).

Brayfield and Crockett (1955) suggested that feeling good about one's work, in and of itself, did not result in better performance. A number of intervening variables were shown to influence the relationship between satisfaction and job behavior. However, Ostroff (1992) provided evidence that job performance and satisfaction were positively correlated when both variables were aggregated to the organizational level.

Johnsrud and Edwards (2001) extended the satisfaction and dissatisfaction models to the concept of midlevel administrators' intent to leave their current position. The study expanded on earlier work by Johnsrud, Heck, and Rosser (2000) who indicated that morale had a direct effect on intent to leave. The 2001 study distinguished between the concepts of morale and satisfaction and studied whether the two concepts had differing impacts on intent to leave. Results indicated that the two concepts could be independently defined and measured and that both were significantly related to intent to leave, but that satisfaction had a higher negative correlation with the intent to leave than did morale.

When measuring job satisfaction, two strategies have generally been employed. The first strategy involves measurement of a global quantification of the construct through single or multiple item scales evaluating employees' general overall satisfaction

toward the job (Balzer et al., 2000). But Smith et al. (1969) argued that satisfaction should not be measured as a single construct. According to Smith, satisfaction should be measured relative to a number of characteristics and alternatives.

Thus, the second strategy for measuring satisfaction evolved. Researchers began to measure a number of varying facets of job satisfaction as opposed to overall job satisfaction. This strategy recognizes that employees may have competing feelings about different facets of their job (Balzer et al., 2000). For example, an employee could be well satisfied with pay, but dissatisfied with the potential for advancement on the job. Likewise, an employee could be very satisfied with his coworkers, but extremely dissatisfied with his supervisor. Smith's (1969) research led him to conclude that there were five principal areas of satisfaction with the job, including the work itself, pay, promotions, supervision, and co-workers. A number of studies from Bowling Green State University have supported the significance of these five satisfaction facets (Balzer et al., 2000).

Since individuals may experience significant differences among areas of job satisfaction and place varying importance on each of those variables, simply summing scores of the various measured facets will not accurately measure an individual's overall sense of satisfaction on the job. Therefore, researchers may indeed get more comprehensive and accurate information regarding an employee's job satisfaction if both an overall assessment of job satisfaction and a measure of satisfaction of various facets are performed.

The Job Descriptive Index and companion Job in General scales were developed in order to measure both the employees' general satisfaction and satisfaction with various

components of the job (Balzer et al., 2000). These research instruments will be discussed in Chapter 3.

Nursing Faculty Satisfaction

Job satisfaction has been defined as “the fulfillment an individual acquires from experiencing various job activities and rewards” (Donohue, 1986, p. 374). Though the nursing literature has long recognized the importance of job satisfaction to staff nurses, little research focus has been dedicated to studying the satisfaction of nurse educators (Donohue, 1986; Moody, 1996; Snarr & Krochalk, 1996). Despite the conclusions of the 1985 Carnegie Foundation for the Advancement of Teaching Report that 40 percent of 5,000 faculty surveyed in 1984 were considering a move out of academia by 1990 (Moody, 1996), research on nursing faculty satisfaction is still quite limited. Studies to date on the subject have focused on a number of variables associated with faculty satisfaction: faculty expectations (Christian, 1986); organizational climate (Dick, 1986; Donohue, 1986; Haussler, 1988); organizational characteristics (Brookman, 1989; Cowen, 1991; Donahue, 1986; Grandjean, Bonjean, & Aiken, 1982; Holland, 1992; Kennerly, 1989; Moody, 1996; Snarr & Krochalk, 1996); nature of the work (Cowen, 1991); role satisfaction (Moody, 1996); role conflict and role ambiguity (Fain, 1987); leadership characteristics (Bauder, 1982a; Bauder, 1982b; Dick; Donohue; Hausler; Kennerly; Mosser, 2000; Mosser & Walls, 2002; O’Mara, 1991; Pollock, 1986; Shieh, Mills & Waltz, 2001; Small, 2002); and individual characteristics (Brookman; Donohue; Holland, 1992; Marriner & Craigie, 1977; Moody; O’Mara). Some have addressed satisfaction’s negative correlation with intention to leave position (Holland, 1992) and the concept of burnout as it relates to faculty dissatisfaction (Sarmiento, Laschinger &

Iwasiw, 2004). Nurse scholars concur that further investigations in this area are greatly needed (Snarr & Krochalk, 1996) and that an understanding of factors contributing to job satisfaction for nurse educators would certainly seem to be significant in addressing the current decline in the number of nursing faculty (Gormley, 2003).

Gormley (2003) conducted a CINAHL search of published U.S. nursing literature to identify studies exploring job satisfaction in nurse faculty in baccalaureate or higher degree programs. The six identified studies, published between 1976 and 1996, were subjected to meta-analysis to determine which influencing factors had the greatest effect on faculty job satisfaction. The six study authors reviewed by Gormly were Grandjean, Aiken and Bonjean (1976), Christian (1986), Donohue, (1986), Fain (1987), Kennerly (1989), and Snarr and Krochalk (1996). Gormley's meta-analysis highlighted eight predictor variables that were positively correlated with faculty satisfaction. These variables included professional autonomy, leader role expectations, organizational climate, perceived role conflict and role ambiguity, leadership behaviors, and organizational characteristics. The research synthesis concluded that the factors with the highest predictive power were intrinsic, as opposed to extrinsic, factors. These results are congruent with an earlier study of intrinsic and extrinsic factors done by Marriner and Craigie (1977) and with Herzberg's two-factor theory that postulates that job satisfaction is the result of intrinsic factors such as achievement, recognition, the work itself, responsibility, and growth (King, 1970). Leadership behaviors that were predictive of satisfaction were consideration and initiating structure behaviors and the perception and expectation of the leader's role in curriculum and instruction. Gormley concluded from

this review that “dean or chairperson behavior strongly influences nursing faculty job satisfaction” (p. 177).

Donahue’s (1986) research suggested that in environments where the dean was perceived to be impersonal and aloof in dealings with faculty, overall faculty job satisfaction decreased. Job satisfaction also decreased when the faculty felt unnecessarily burdened by the dean. This finding supports the second factor of Herzberg’s two-factor theory – that dissatisfaction with a job is caused by extrinsic factors such as company policy, supervision, working conditions, salary, interpersonal relations, and job security (King, 1970).

Since Gormley’s meta-analysis, which concluded with literature from 1996, a CINAHL search conducted by this author identified only five more published U.S. studies (and one in Taiwan) from 1996-2006. The first, a national study of nurse faculty job satisfaction, supported the earlier works of Donohue (1986) and Fain (1987) in regards to showing a significant relationship between increased age, number of years of teaching experience, and increased rank with satisfaction with pay (Moody, 1996). Moody’s study identified only one organizational characteristic significantly related to job satisfaction. Nurse faculty teaching at universities with a larger population was more satisfied with pay. However, a number of other studies offer conflicting evidence of job satisfaction’s correlation with size of the nursing student population (Donohue; Kennerly, 1989) and the number of nurse faculty (Kennerly). Moody reported that the percentage of time spent in undergraduate teaching and advising had a negative relationship to satisfaction with pay, opportunities for promotion, and the job in general; seemingly in conflict with the results of Willie and Stecklein (1982) who reported that the opportunity

to work with students was reported as a primary source of career satisfaction by undergraduate faculty. Moody's other significant findings were that nurse faculty teaching at the undergraduate level are less satisfied than faculty teaching at the graduate level; and that faculty teaching at the graduate level, who spend more time in research and scholarship, are satisfied with pay and with the opportunities for promotion. Moody also found that the amount of time spent by faculty in committee work, administration, and institutional service is not significantly related to nurse faculty job satisfaction.

Berlin and Sechrist (2003) analyzed data from the 1999 National Study of Postsecondary Faculty (National Center for Education Statistics, 2002)) with the goal of quantifying the extent of job dissatisfaction of the subset of 4,295 full-time nurse faculty holding doctoral degrees whose primary responsibilities were teaching and research. Variables of interest to the study included overall job satisfaction, job security, opportunity for advancement, workload, effectiveness of leadership, salary, benefits, and time to keep current in the field. The findings determined higher levels of dissatisfaction with all but one of the studied variables – time to keep current in their field – among junior faculty (faculty with ranks of assistant professor, instructor and lecturer) than senior faculty (faculty with ranks of full and associate professor). They found that 54.7 percent of junior faculty expressed dissatisfaction with workload whereas only 29.5 percent of senior faculty had the same complaint.

Disch, Edwardson, and Adwan (2004) found, in their study of Minnesota's nursing faculty's satisfaction with individual, institutional, and leadership factors that, sadly, only 44 percent of nursing faculty had confidence in nursing's direction. Yet, faculty in all three levels of nursing education agreed that they were committed to their

profession and careers, were satisfied with the organizational infrastructure, and felt supported by their deans and senior faculty colleagues.

The National League for Nursing (2005) conducted a study very similar to the Minnesota study, with the exception that the sample was drawn from the national population of nurse educators. Although a slightly higher level (54%) had confidence in nursing's direction than in the Minnesota study, a greater number of respondents in the National League for Nursing study reported confidence in the current direction of their particular college or university (64.3%) and their specific department or school of nursing (65.6%). Many of the findings of this study supported Minzberg's conclusion that satisfaction is related to intrinsic factors and dissatisfaction related to extrinsic factors (King, 1970). For example, the leading factor that influenced study participants to stay in the faculty role was the desire to work with students. Other frequently mentioned factors included contributing to the profession, working in an intellectually stimulating environment, and having autonomy and flexibility in one's work. The NLN study also identified the leaders' ability to develop and communicate a vision as a factor associated with faculty satisfaction. On the contrary, factors associated with faculty members' consideration of leaving the faculty role included extrinsic variables such as workload and work hours.

Shieh, Mills, and Waltz (2001) studied the influence of nursing deans' and administrators' transformational and transactional leadership styles on nursing faculty job satisfaction in baccalaureate and associate degree nursing programs in Taiwan. Their findings suggested that nursing education leaders using contingent reward leadership styles were positively correlated with higher levels of faculty satisfaction regarding

meeting individual faculty needs and with satisfaction with leadership style. Likewise, the leaders who displayed idealized influence and intellectual stimulation leadership styles also achieved high rankings of faculty satisfaction with leadership styles. Conversely, nurse leaders who utilized the active management-by-exception leadership style more frequently produced lower levels of faculty satisfaction in regards to the job meeting individual needs and leadership style. Leadership effectiveness was also studied by Mansen (1993), who found that job satisfaction, along with two other organizational variables – formalization and centralization – affects the faculty’s perception of their nursing administrators’ leadership effectiveness.

Sarmiento, Laschinger and Iwasiw (2004) studied burnout and structural empowerment as variables relating to faculty job satisfaction. Results indicate that college nursing faculty reported moderate levels of empowerment and job satisfaction in the workplace, but also moderate levels of burnout. Multiple regression analysis revealed that 60% of the variance in perceptions of job satisfaction was explained by high levels of empowerment and low levels of emotional exhaustion. Higher levels of empowerment were associated with lower levels of burnout and greater work satisfaction.

A unique study by McNeal (2003) compared faculty satisfaction and scholarly productivity of African American nurse faculty at predominately white colleges and universities to those at historically black colleges and universities. The findings revealed that African-American faculty at white colleges demonstrated higher levels of authorship, had higher salaries, and held more tenured positions, yet were significantly less satisfied with the leadership, environment, and socialization processes at their schools than were the faculty at the historically black colleges. McNeal also found a positive correlation

between faculty satisfaction and three of the six dimensions of organizational culture at historically black colleges.

A number of doctoral dissertations have contributed to the current knowledge of nursing faculty satisfaction over the past decade. McInnis (2005) studied the relationship between varying teaching methodologies (i.e., traditional, online, hybrid and mixed) and nursing faculty satisfaction and found there to be no difference in faculty satisfaction based on course delivery methodology.

Reynolds (1997) designed a study to explore job satisfaction and collegial support in relation to the retention of nurse educators. Data supported the hypothesis that as job satisfaction increases, the likelihood of a faculty member's leaving his or her position decreases. (This finding provides support to the published works of Johnsrud, Heck and Rosser (2000) in the education literature.) Reynold's research also indicated that the likelihood of a faculty member leaving his or her current position decreased as the perception of collegial support increased.

Kuennen (2002) evaluated collegiality in relationship to job satisfaction in a study of nurse educators at private colleges and universities. Though the findings indicated that workload, collegiality, and the work itself were all predictive of overall job satisfaction, collegiality was found to be the most predictive.

Beach (1997) studied the perceptions of job satisfaction of nursing faculty in Mississippi's nursing degree programs. Six facets of job satisfaction were examined to determine the relationship between the facets and demographic variables. The only strong correlation found was between the academic program in which the faculty taught and opportunities for promotion. Faculty teaching in baccalaureate and higher degree nursing

programs were more satisfied with opportunities for promotion than were the faculty teaching in associate degree programs. This would seem to be contrary to Herzberg's two-factor theory where internal variables support faculty satisfaction.

The review of the literature on nursing faculty satisfaction demonstrates significant positive correlation between satisfaction and components of leadership and organizational effectiveness. A smaller body of literature also confirms a negative correlation between faculty job satisfaction and intent to leave one's current position. In combination with the literature on cognitive complexity and leadership effectiveness, one might hypothesize that the cognitively complex nursing leader would be better equipped to manage issues affecting faculty job satisfaction and organizational effectiveness and to recruit and retain quality faculty. These relationships will be further explored through this study. Chapter three will describe the research methodology used to study the cognitive complexity of nursing academic leadership and the relationship to faculty perceptions of job satisfaction, satisfaction with supervisor, and supervisory leadership effectiveness.

CHAPTER 3: RESEARCH METHODOLOGY

Introduction

Nursing education faces great challenges today (NLN, 2005) as the faculty workforce ages and leaves the profession (Trossman, 2002), and fewer younger nurses are choosing to enter the field of academia (Corcoran, 2006). In an era of widespread national nursing shortages, nursing schools are forced to deny hundreds of qualified nursing candidates due to the shortage of nursing faculty (Bellack, 2004). The reasons for the nursing faculty shortage are many, but include the dissatisfaction associated with the multiple demands of the role (Gormley, 2003).

In light of the nursing faculty shortage, it is essential that successful and innovative strategies for recruitment and retention of nursing faculty be developed and implemented by academic nurse leaders. These leaders must have the ability to develop and promote vision within their organizations, and to broaden the spectrum of potential solutions to the persistent problems facing the profession. Paradigm shifts will be required to make possible the substantive change that is essential for the survival of nursing as a profession (NLN, 2003).

Research has shown that cognitively complex leaders are better suited to solve complicated problems as they are able to assess organizational issues through multiple perspectives, thus giving them a broader view of the organization and a larger pool from which to draw decisions, options, and plans (Bolman & Deal, 2003). This ability enables the leader to make more informed, more creative, and more effective decisions. In addition, effective academic leadership has been demonstrated to positively correlate

with faculty satisfaction (Gormley, 2003) and faculty satisfaction has been shown to have an inverse relationship with intent to leave positions (Johnsrud & Edwards, 2001).

The current chapter outlines the methods by which nursing program administrators' leadership practices were studied. The study focuses on the relationship of nursing administrators' leadership frame orientation (an indicator of cognitive complexity) and faculty members' perceptions of leadership effectiveness, as measured by Bolman and Deal's Leadership Orientations Instrument (Other) (see Appendix A) to faculty job satisfaction and satisfaction with the supervisor, as measured by the abridged Job Description Index (AJDI) and companion abridged Job In General (AJIG) Scale.

Three substantive issues are studied through the methodology of this study and include: (a) baccalaureate and graduate nursing faculties' perception of their program administrators' use of Bolman and Deal's leadership frames, (b) the relationship of the nursing administrators' frame usage to faculty members' perception of the nursing school administrators' leadership effectiveness and (c) the relationship of the nursing school administrators' frame usage to faculty perceptions of general job satisfaction and satisfaction with the supervisor. This chapter presents the research design, the research questions, data collection procedures and data analysis plan.

Research Questions

Literature on leadership effectiveness, cognitive complexity, and faculty satisfaction suggest the following research questions:

1. Which of Bolman and Deal's identified four leadership frames do nursing faculty members perceive as the favored frame choice of their nursing school administrators?

2. How many frames do nursing school administrators use?
3. Is there a relationship between favored frame choice of nursing school administrators' (as measured by their nursing faculty members) and the perception of the administrator's leadership effectiveness?
4. Is there a relationship between the favored frame choice of nursing school administrators' (as measured by their nursing faculty members) and the nursing faculty members' general job satisfaction or satisfaction with their supervisor?
5. Is there a relationship between the administrators' cognitive complexity (as measured by their multi-frame index score) and the nursing faculty members' general job satisfaction or satisfaction with their supervisor?
6. Is there a relationship between faculty perceptions of leadership effectiveness of nursing school administrators and the administrators' cognitive complexity (as measured by their multi-frame index score)?

Research Design

A non-experimental study design, with no attempt to manipulate variables, was employed to carry out this study. Bolman and Deal's Leadership Orientations Instrument (Other) was used to determine the favored frame of nursing school administrators and whether the administrators were characterized by the faculty as single, dual, or multi-frame users. The same survey was utilized to determine leadership effectiveness of the administrators. The abridged Job Descriptive Index (aJDI) and companion abridged Job in General (aJIG) scales were utilized to collect data from faculty on general job satisfaction and satisfaction with the nursing department administrative leader.

Permission to use both instruments was sought and granted, but the copyright holders of the aJDI and aJIG restrict publication of their tool (see Appendixes B, C and D for permission and restriction information). Descriptive demographic data were also collected. The LOI, aJDI, aJIG, and demographic data were combined into a single internet-compatible instrument. Surveys were completed by respondents via a secure internet site.

Variables

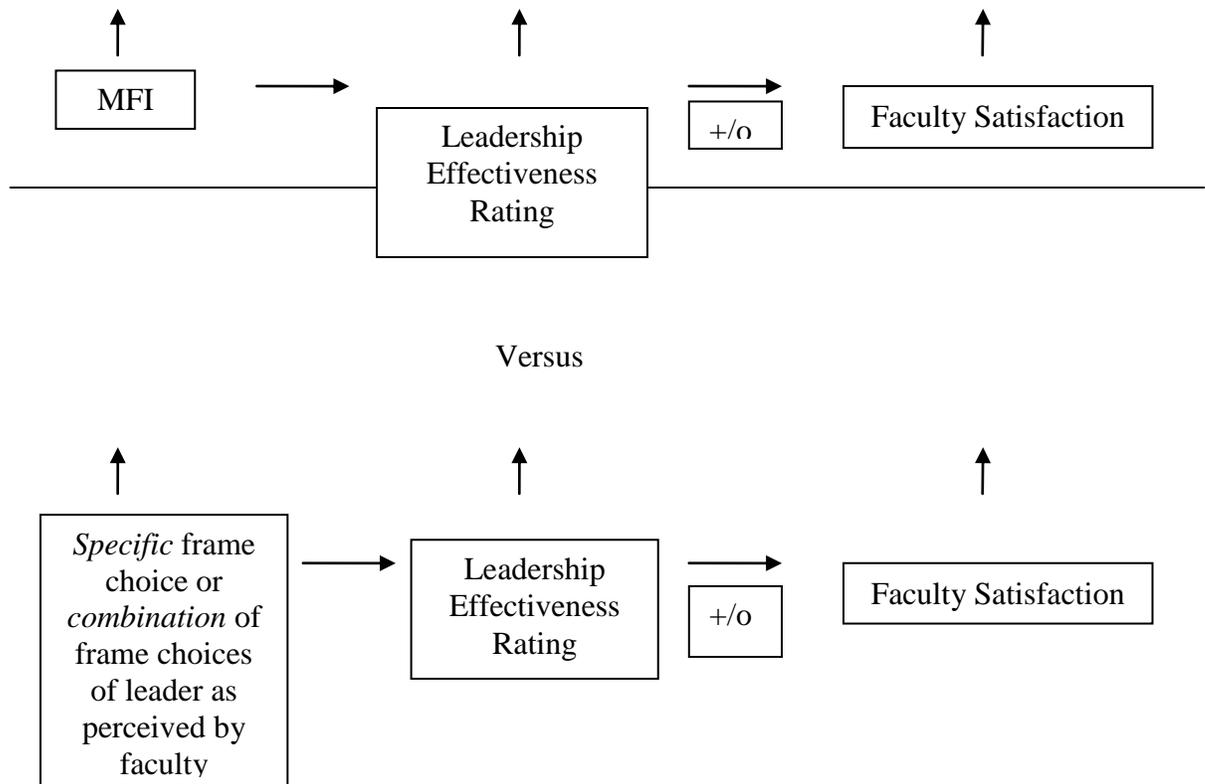
The independent variables in this study were single, dual, and multi-frame leadership. The independent variables were operationalized as follows:

1. An administrator was identified with a single frame leadership style when the MFI from Bolman and Deal's Leadership Orientations Instrument (Other) was calculated as 1. That one specific leader-favored leadership frame was identified from the four possible frames as either structural, human resource, political, or symbolic (Bolman & Deal, 1992).
2. An administrator was identified with a dual frame leadership style when the MFI from Bolman and Deal's Leadership Orientations Instrument (Other) was calculated as 2. The two specific leader-favored leadership frames were identified from the four possible frames as either structural, human resource, political, or symbolic (Bolman & Deal, 1992).
3. An administrator was identified with a multi-frame leadership style when the MFI from Bolman and Deal's Leadership Orientations

Instrument (Other) was calculated as either a 3 or a 4. The three or four specific leader-favored leadership frames were identified from the four possible frames as either structural, human resource, political, or symbolic (Bolman & Deal, 1992).

The dependent variables of this study were faculty perceptions of leadership effectiveness and job satisfaction. The perceived leader effectiveness was operationalized through full-time faculty members ratings of their administrative leader on the Leadership Orientations (Other) questionnaire, where faculty were asked to rate their nursing school administrators' "overall effectiveness as a leader" on a scale from one for *low* to five for *high* (Bolman & Deal, 1990). The second set of dependent variables, general job satisfaction and satisfaction with the supervisor, was operationalized through scores obtained from the abridged Job Descriptive Index and from one of the subsections (satisfaction with the supervisor) of the abridged Job in General Scale (Balzer et al., 2000). The predicted potential relationships between the variables are illustrated in Figure 1. The illustration in Figure 1 visually represents the researcher's question as to whether a leader's favored frame is significantly associated with leadership effectiveness and faculty satisfaction; or whether the ability to multi-frame is the significant variable.

Figure 1. Relationship Between Variables.



Population and Sample

The population for this study consists of nursing faculty members across the nation holding no administrative titles, who maintain full-time positions as professors, associate professors, assistant professors, or instructors in CCNE-accredited baccalaureate and graduate programs of nursing and the administrative nursing leader of each of those programs. According to the American Association of Colleges of Nursing, (the parent institution for the CCNE accrediting arm), the total number of full-time

faculty in the AACN-member nursing schools is 13,311 (Fang, Htut, & Bednash, 2008). The total number of full-time faculty in CCNE accredited schools is not publicly available.

All 491 CCNE-accredited colleges and universities in the United States that offered baccalaureate and graduate programs in nursing at the time of the survey, as listed in the AACN 2007 database (Fang et al., 2007), were contacted after permission was granted by the CCNE to survey their members (see Appendix F). These 491 nursing school administrators were notified by email of the study purpose and a request was made for approval for their faculty to participate in the survey research (see Appendix G for Administrator Participation Request Letter). If the administrators agreed to participate, they were asked to forward the Faculty Participation Request Letter (which included the link to the secure participant survey) to their program's full-time, non-administrative faculty members (see Appendix H for Faculty Participation Request Letter). The sample included all baccalaureate and graduate program nursing faculty members, tenured and non-tenured, from across the nation whose administrators approved their participation and who returned the on-line survey.

Procedures

Following the sampling procedure noted above, willing survey participants were provided a link to a secure website that limited access to people in the sample. The website provided a brief paragraph with the purpose of the study and instructions for completion of the survey instruments. The internet survey process was guided by principles of the Tailored Design Method, as described by Dillman (2000). Survey instruments included the Leadership Orientations Questionnaire (Other) and the abridged

Job Descriptive Index (aJDI). The aJDI is bundled with a complementary tool, the abridged Job In General (aJIG) Scale. A brief Faculty Demographic Data Sheet was also included as part of the data collection. The LOI (Other), aJDI, aJIG, and demographic data survey were combined into an internet-compatible single instrument (see Appendix E for sample portion of internet survey instrument). Confidentiality of responses was assured each respondent. Agreeing to informed consent was a prerequisite for entering page one of the survey.

Bolman and Deal's Leadership Orientations Instrument (Other)

Bolman and Deal's Leadership Orientations Instrument (Other) was developed in the 1980s (Bolman & Deal, n.d.). Permission to use the instrument was granted by Dr. Lee Bolman (See Appendix B for e-mail granting of permission). The Leadership Orientations Instrument (Other) was developed as a self-administered survey, designed to measure perceived patterns in leader behaviors from the perspectives of colleagues (superiors, peers, subordinates, etc.) The instrument is divided into three sections.

The first section contains rating scales in a sequence consistent with the four leadership frames. Each of the four frames are represented by eight items which typify separate dimensions of leadership. Items 1, 5, 9, 13, 17, 21, 25, and 29 represent the structural frame. The human resource frame is reflected in items 2, 6, 10, 14, 18, 22, 26, and 30. The political frame is measured through items 3, 7, 11, 15, 19, 23, 27, and 31 and the symbolic frame through items 4, 8, 12, 16, 20, 24, 28, and 32. Respondents are asked to rate the degree to which the study subject exhibits each leader behavior on a 5 point-Likert scale (1 = *Never*, 2 = *Occasionally*, 3 = *Sometimes*, 4 = *Often*, 5 = *Always*) (Bolman & Deal, n.d.)

The second section contains a series of six forced-choice items arranged in the same sequence as the items in section one (structural, human resource, political, and symbolic) and is designed to elicit favored frame usage of the study subject. Each item gives four options and participants rank the options from 1 (*least like the research subject*) to 4 (*best describes the research subject*). The third section of the instrument consists of just two one-item measures – the employee’s evaluation of the leader’s effectiveness as a manager and as a leader (again using a 5-point Likert scale) (Bolman & Deal, n.d.).

The rating scale in the first section of the instrument, while it allows measurement of effectiveness in the use of each frame, also can be subject to the *halo effect*. The second section, which requires the rater to differentiate levels of usage between frames, results in a “sharper differentiation among the frames” (Bolman & Deal, 1992, p. 320) because it is impossible to rate the administrator high on everything.

A factor analysis of this instrument indicated a high degree of internal consistency (Redman, 1991) for the frames and their subscales. Additionally, high internal reliability was demonstrated by Bolman and Deal (1991a) with Cronbach’s alpha ranges between .91 and .93.

The Leadership Orientations Instrument has been used by a number of researchers and doctoral students interested in measuring frame usage among organizational leaders. Bolman and Deal cite a number of works that utilized this instrument, including approximately 30 doctoral dissertations (Bolman & Deal, n.d.).

The Abridged Job Descriptive Index and the Abridged Job in General Scales

The Job Descriptive Index (JDI) has been described as the most popular and widely used measure of job satisfaction (Buckley, Carraher & Cote, 1992). It has been translated into 11 languages and administered in at least 17 countries (Stanton et al., 2001). Reliability and validity have been well established through a significant body of research, including a meta-analysis of empirical studies conducted by Kinicki, McKee-Ryan, Schriesheim, and Carson (2002), which supported the construct validity of the JDI. High internal consistency for a variety of respondent populations has been noted (Stanton et al., 2001).

Known as the “gold standard” of measuring job satisfaction (Landy & Shankster, 1994, p. 271), the JDI was designed in the early 1960s to measure five important facets of job satisfaction. The five aspects of satisfaction measured by the JDI include the work itself, pay, opportunities for promotion, supervision and coworkers (Stanton et al., 2001). The Job in General (JIG) scale accompanies the JDI and measures general satisfaction with the job. The item content, validity, and national norms have been updated over the past three decades with the most recent update of the item content and a complete renorming of the instrument occurring in 1997 (Balzar et al., 2000).

Despite a brief response format, item brevity, and a low required reading level, the 72-item instrument takes up a significant amount of space and requires several minutes to complete. In addition, a review of the numerous studies on job satisfaction reveals that job satisfaction is rarely measured in isolation, but instead is usually undertaken as a measurement alongside other constructs (for example, in relation to intent to quit or measurement of organizational climate). Measuring multiple constructs

generally requires a lengthier total survey instrument (Stanton et al, 2001). Dillman (2000) proposes that survey non-response can be avoided by using questionnaires that appear shorter and easy to complete.

Thus, the abridged Job Descriptive Index (aJDI) and the abridged Job in General Scales (aJIG) were created in 2001 to reduce the item count, administration time, and required survey space while preserving the desired characteristics of the full-length version (Stanton, et al., 2001). A combination psychometric/rational strategy for scale reduction was completed in 2000 and research results, published in 2001, indicate that the relationships among the five abridged subscales and the other measures were preserved with the shortened versions of the questionnaires (Stanton).

The abridged version contains five very short items, consisting of an adjective or adjectival phrase, describing the respondent's work experience and relating specifically to each of the identified five facets. Twenty-five items overall are contained on the aJDI. The abridged Job Descriptive Index (aJDI) measures job satisfaction in the same five areas as the JDI. It, like the original JDI, is bundled with a companion instrument designed to evaluate overall job satisfaction, the abridged Job in General (aJIG) scale. The aJIG is composed of eight items. Both the aJDI and the aJIG can be administered with other instruments with no noted problems (Stanton et al., 2001).

Scoring of the favorably worded responses on aJIG and aJDI is completed by assigning three points for *Yes* answers, zero points for *No* answers and one point for *Not sure* answers. On items worded in the alternative unfavorable response, *Yes* answers receive zero points, *No* answers receive three points, and the *Not sure* answer receives one point (Balzer et al., 2000).

In addition to the LOI and the JDI, a demographic section was included with the survey to obtain information related to age, highest degree earned, academic rank, tenure status, number of years of previous full-time teaching experience, and number of years employed as a full-time faculty member in the present institution.

Data Analysis

Data analysis was performed in the following manner to answer each of the research questions:

Research question one: Which of Bolman and Deal's identified four leadership frames do nursing faculty members perceive as the favored frame choice of their nursing program administrator?

Bolman and Deal's Leadership Orientations Instrument (Section 2) was scored by summing the points for each of the forced choice responses for response *a*, representing the structural frame; response *b*, representing the human resource frame; response *c*, representing the political frame; and response *d*, representing the symbolic frame. Since forced-choice ranking scores from one to four were selected by respondents, with a score of one representing the option *least like* the study subject and a score of four representing the option of *best describes this person*; the frame with the highest score represents the favored frame of the administrator, as judged by the faculty member. Results for the survey respondents were illustrated through a table identifying the frequency and percentage of administrators with favored preferences for each of the four frames.

Research question two: How many frames do nursing school administrators use?

This question was answered using two separate reporting methods. The Multi-frame Index was calculated by averaging the scores for each frame scale on Bolman & Deal's Leadership Orientations Instrument (Section 1). Scale values equivalent to, or greater than, *often* (value = 4) set the threshold for a perspective as characteristic of the subject of study. Thus, the number of scales with a mean response value of 4.0 or greater was reported as the value of the multi-frame index. An MFI score of 1 characterizes the administrator as single-framed, while a score of 4 indicates threshold-level use of all four perspectives. The number and percentage of nursing school administrators characterized by faculty as single, dual, and multi-framed were illustrated in a tabular format.

The second analysis was accomplished by totaling scores for each frame subset from Section 1 of the LOI, then dividing by 8 to provide a mean which could be examined in light of a predetermined threshold for consistence with frame usage. This threshold was a score of 4 or above, which represented usage at a level of often or always. From this data, the total number and percent of the faculty members who endorsed designated frames as being used at the predetermined value by their nursing school administrators was reported. This data were presented in a frequency table.

Research question three: Is there a relationship between the favored frame choice of nursing school administrators' (as measured by their nursing faculty members) and the perception of the administrator's leadership effectiveness?

After earlier determination was made of favored frame choices (as described in Research Question 1), a Pearson's chi-square test, selected as an appropriate analysis for testing relationships between categorical variables, was performed to determine whether the variables of favored frame choice and the nursing school administrators' leadership ratings are independent. A second test, the analysis of variance (ANOVA), was also performed to determine if there is variance among group means. If the F-ratios from the ANOVA illustrated independence among variables, a post-hoc analysis using Tukey's Honestly Significant Differences (HSD) comparison was utilized to provide information regarding which groups differ and in what ways.

Research question four: Is there a relationship between the favored frame choice of nursing program administrators' (as measured by their nursing faculty members) and the nursing faculty members' general job satisfaction or satisfaction with their supervisor?

The same analysis was performed on the variables of favored frame choice and nursing faculty members' job satisfaction as was performed for Research Question 3. Pearson's chi-square was used to determine whether the variables of favored frame choice and satisfaction ratings were independent, and ANOVA was utilized to examine variance among group means. Tukey HSD was utilized, when appropriate, to further qualify individual group differences.

Research question five: Is there a relationship between the nursing school administrators' cognitive complexity (as measured by their multi-frame index score) and the nursing faculty members' general job satisfaction or satisfaction with their supervisor?

The complexity of nursing school administrators' leadership frame usage (the independent variable) was determined by Bolman and Deal's Leadership Orientations Instrument (Section 1). Sums for the scores (ranging from one to five) given each of the items individually representing the four frames (i.e., items 1, 5, 9, 13, 17, 21, 25, and 29 represent the structural frame; items 2, 6, 10, 14, 18, 22, 26, and 30 represent the human resource frame; items 3, 7, 11, 15, 19, 23, 27, and 31 represent the political frame; and items 4, 8, 12, 16, 20, 24, 28, and 32 represent the symbolic frame) were totaled and divided by eight to produce a mean score. Mean scores of four or higher were determined to represent competency in that frame. Individuals with mean scores of four or higher in only one frame were categorized as single-frame users. Those who had mean scores of four or above in two frames were categorized as dual-frame users. Administrators who had mean scores of four or above in either three or four of the frames were categorized as multi-frame users (Bensimon, 1991; Del Favero, 2006).

Job satisfaction was measured using the aJIG score and the subscore of satisfaction with supervisor from the aJDI. Pearson's chi-square was the analysis of choice to determine whether there is an independent relationship between the variables of multi-frame usage and general job satisfaction or satisfaction with the supervisor. ANOVAs were calculated to determine whether group means differed. If the ANOVA's

F- ratio was significant, a post-hoc analysis using Tukey HSD test was calculated to provide further insight into which groups differ and how.

Research question six: Is there a relationship between the perceived leadership effectiveness of nursing school administrators and the administrators' cognitive complexity (as measured by their multi-frame index score)?

Chi square analysis also was used to test the variables of single, dual and multi-frame leadership (representing cognitive complexity) and the variable of leadership effectiveness. The analysis for research question 6 was conducted as for research question 5 with chi-square, ANOVA and Tukey HSD, when appropriate.

Limitations

All studies conducted using the survey method for data gathering are dependent upon the truthful responses of the survey respondents. Questions are closed-ended with fixed alternatives. This requires the respondent to interpret the questions and limits the subjects' opportunities for full expression. Scope is emphasized over depth and there is some degree of measurement error that can affect interpretation of results (Kerlinger, 1964).

This study utilized online surveys because of their low cost, time-saving features, and the increased willingness of many to participate in this type of survey. However, limitations are noted in the use of on-line surveys. Though most faculty members have computer access today, not all are comfortable using the computer or using a particular web survey methodology (NLN, 2003). Self-selection bias is another limitation of online survey research. Some individuals are just more likely to complete online surveys than are others. What's more, due to the volume of on-line requests, participants may be

desensitized to worthwhile survey requests (Wright, 2005). Though measures were taken to reduce the possibility, on-line surveys do have greater potential for multiple responses by the same participant (Konstan, Rosser, Ross, Stanton, & Edwards, 2005).

Also, the leadership styles of the nursing school administrators were measured by the perception of the nursing faculty and were not measured as a perception by the administrator personally (Kerlinger, 1986). This approach was used because research has suggested that the validity of self ratings of leadership is generally lower than are ratings of others (Birnbaum, 1992).

The reliability and validity of the leadership style instrument, Bolman and Deal's Leadership Orientations Instrument (Other), impose a limitation on the results of the study (Kerlinger, 1986). The same limitation is true of the job satisfaction measurement instruments, the abridged Job Descriptive Index and the abridged Job In General scale. The job satisfaction questionnaires were not specifically designed to measure satisfaction in academia, rather to be an instrument that could be broadly utilized in a range of job classification and organizations (Balzer et al., 2000). Using the instrument in a fashion other than that for which it was designed may alter validity and reliability.

Data in this study were from faculty members in CCNE-accredited baccalaureate and graduate programs and the results may not be generalized to faculty in non-accredited or associate degree programs. All faculty members surveyed were full-time nursing faculty; thus, results may not be generalized to part-time nursing faculty.

Summary

Chapter Three outlined the methods by which nursing school administrators' leadership frame orientation and the relationship of frame orientation to faculty

perceptions of job satisfaction, satisfaction with the supervisor, and leadership effectiveness was studied. Bolman and Deal's Leadership Orientations Instrument (Other) was introduced as the means for determining frame orientation (an indicator of cognitive complexity) and leadership effectiveness. The abridged Job Descriptive Index (aJDI) and companion abridged Job In General (aJIG) Scales were presented as efficient, gold-standard tools to measure job satisfaction. The findings will be presented in Chapter 4 and discussion, conclusions and recommendations will follow in Chapter 5.

CHAPTER 4: FINDINGS

“Most people are more comfortable with old problems than with new solutions.” (Author Unknown)

The purpose of this study was to determine which of Bolman and Deal's (1997, 2003) identified four frames were utilized and favored by nursing school administrators and whether multi-frame usage is associated with faculty members' perceptions of job satisfaction, satisfaction with the supervisor, and leadership effectiveness. Frame utilization and leadership effectiveness of nursing school administrators, as perceived and reported by full-time faculty members, was measured through Bolman and Deal's Leadership Orientations Instrument (Other). The abridged Job Descriptive Index (Revised) and its companion abridged Job in General Scale (Revised) was used to measure faculty satisfaction.

Chapter four presents the data collected and the data analysis for this study. All references to leadership frames, leadership effectiveness and faculty satisfaction reflect the perceptions of the non-administrative faculty members who participated in this study. This chapter includes descriptions of the population and sample, the statistical analysis of the data, the major findings, and a summary of the chapter.

Population and Sample

The population for this study consists of nursing faculty members across the nation holding no administrative titles, who maintain full-time positions as professors, associate professors, assistant professors, or instructors in CCNE-accredited

baccalaureate and graduate programs of nursing and the administrative nursing leader of each of those programs. According to the AACN (parent institution for the CCNE accrediting arm), the total number of full-time faculty for the 2007-2008 academic year in member nursing schools is 13,311 (Fang, Htut, & Bednash, 2008). The total number of full-time faculty in CCNE- accredited schools is not publicly available. The total number of AACN member schools is 618, with 134 non-member schools (Fang, Htut & Bednash, 2008).

All 491 CCNE-accredited colleges and universities in the United States (79.4% of member schools) that offer baccalaureate and graduate programs in nursing, as listed in the AACN 2007 database (Fang et al., 2007), were contacted. Administrators of these 491 nursing school programs were notified by email of the study purpose and a request was made for approval for their faculty to participate in the survey research (see Appendix G for Administrator Participation Request Letter). If the nursing school administrators agreed to participate, they were asked to forward the Faculty Participation Request Letter (see Appendix H), which included the link to the secure participant survey, to their program's full-time, non-administrative faculty members. The sample included all faculty members, tenured and non-tenured, from across the nation whose administrators approved their participation and who returned the on-line survey.

Three hundred thirty-seven participants returned surveys. Four surveys were excluded because those participants identified themselves as holding an administrative title. Another six surveys were excluded because the participants did not proceed past the consent page. A total of 327 usable responses were received from the nursing faculty members.

Descriptive Statistics

A demographic questionnaire measured participants' age, highest academic degree earned, current academic rank, tenure status, years of employment as full-time faculty members at their current position, and years of experience as full-time faculty members prior to the current position. The demographic data is presented below and comparisons to the entire population of nursing faculty as reported in the 2007-2008 American Association of Colleges of Nursing's Enrollment and Graduations in Baccalaureate and Graduate Programs of Nursing (Fang, 2008) is also provided, when available. This comparison enables one to determine whether the sample is demographically similar to the population of study. Z-tests conducted for tenure status and the highest earned academic degree failed to show any significant difference between the sample and the population. The demographic categories of age and academic rank were unable to be explored for statistical similarity due to differences in categorizing data between this study and AACN reports. However, the percentages of age and academic rank appear to be similar as well.

Age

Of the 326 respondents who reported their age, 6 were less than 30 years of age (1.8%), 38 were between 30 and 40 years of age (11.7%), 95 were between 41 and 50 years of age (29.1%), 158 were between 51 and 60 years of age (48.5), and 29 were older than 60 years of age (8.9%). Though reported in a different rating scale, the age ranges appear consistent with that reported for all full-time nursing faculty members by the American Association of Colleges of Nursing (the parent institution of the CCNE). The

mean age reported by the AACN was 52.1, with a range from 24 to 82 years. The mode reported by the AACN was 53 years (Fang Htut, & Bednash, 2008).

Highest Academic Degree Obtained

Among the 323 respondents who reported their highest academic degree obtained, 2 held bachelors degrees (0.6%), 167 held masters degrees (51.7%), and 154 reported doctoral degrees or post-doctoral work (47.7%). The AACN reported similar demographics for the 13,311 nurse faculty for the academic year 2007-2008. They reported 45.1 percent doctorally-prepared and 54.9 percent nondoctoral (Fang, Htut, & Bednash, 2008). The calculated z-score associated with the proportion of doctorally-prepared faculty in the sample was 0.94, with an associated p-value of 0.352, indicating the sample is not statistically different from the population in regard to highest earned academic degree.

Current Academic Rank

Three hundred twenty-four respondents provided their current academic rank in this study. Strikingly similar demographics are seen in the AACN 2008 report of characteristics of the 13,311 full-time nursing faculty members. In the current study, 70 were holding the rank of instructor (21.6%) as compared to 22.2% in the AACN report; 152 were assistant professors (46.9%) as compared to 35.4% in the AACN report; 66 held the rank of associate professors (20.4%) as compared to 19.6% in the AACN report; and 36 held full professor ranking (11.1%) as compared to 11.6% in the AACN report. The AACN 2008 report also includes a category of other (11.2%) which includes clinical or faculty associates, lecturers, specialists, visiting professors and adjunct faculty (Fang, Htut, & Bednash, 2008).

Tenure Status

Of the 325 participants who specified their tenure status, 255 were untenured (78.5%) and 70 were tenured faculty members (21.5%). Fang, Htut, & Bednash (2008) reported similar results of the 2008 AACN data for the 13,311 full-time nursing faculty, with 24 percent tenured full-time faculty and 76 percent untenured. The z-score associated with the proportion of tenured faculty in the sample is -1.06 with an associated p-value of 0.289, indicating the sample is not statistically different from the population in regard to tenure status.

Years of Employment at Current Position and Prior Full-Time Faculty Experience

Faculty also provided data regarding years of employment at their current position and prior full-time nursing faculty experience. Interesting to note is the percentage employed at their current position for 5 years or less (59.4%), especially in light of the age of the faculty (57.4% over 50 years of age). The years of employment data are provided in Table 1. The AACN did not report comparable data.

Table 1

Years of Employment at Current Position and Prior Full-Time Faculty Experience

	Yrs. of Employment At Present Position		Prior Full-Time Faculty Experience	
		Percent		Percent
5 years or less	193	59.4	213	65.1
6-10 years	49	15.1	51	15.6
11-15 years	37	11.4	24	7.3
16-20 years	26	8.0	20	6.1
> 20 years	20	6.2	19	5.8

Note: Percents may not total to 100.0 due to rounding.

Statistical Analysis of Survey Data

Two survey instruments, along with the demographic questionnaire, were combined to collect data for analysis of the research questions in this study. The dependent variables under investigation were leadership effectiveness, job satisfaction, and satisfaction with supervisor. The independent variables of interest included the four leadership frames and the multi-frame index. Bolman and Deal's Leadership Orientations Instrument (Other) measured faculty members' perceptions of their administrative nursing leaders' leadership frame use and leadership effectiveness (see Appendix A). The abridged Job Descriptive Index (aJDI) and abridged Job In General (aJIG) scales were used to measure job satisfaction. Descriptions of the measures are found in Chapter 3.

Data analysis of both surveys was guided by the six research questions in the study. The Statistical Package for the Social Sciences (SPSS) 15.0 was used for statistical

computations. Descriptive procedures were used to examine research questions one and two. Calculation of favored frame and multi-frame index scores from questions 1 and 2 are necessary prerequisites for analysis of the remaining research questions.

Pearson's chi-square test was then used to test the relationship between the two categorical variables identified in each of the last four research questions. Chi-square analysis provided a comparison of the observed frequencies in each category to the expected frequency under the assumption that the two variables are independent. If dependence of categorical variables was demonstrated by chi-square, then a follow-up test of means was performed using analysis of variance (ANOVA). Once ANOVA demonstrated difference among means, then a post-hoc Tukey's HSD procedure was used to provide information regarding which groups differed and in what ways by displaying subsets of groups having statistically similar means.

Major Findings

The findings in this study are presented in this section of the chapter, and are reported by research questions. An alpha level of .05 was used to establish significance.

Research question one: Which of Bolman and Deal's identified four leadership frames do nursing faculty members perceive as the favored frame choice of their nursing program administrator?

Bolman and Deal's Leadership Orientations (Other) Instrument, containing a series of six forced-choice items, was used to determine favored frame choice of the nursing school administrators. Each item in Section II of the instrument gives four options, representing each of the four frames. Participants rank the options from one (least like the research subject) to four (best describing the subject). Scoring required

summing the points for each of the forced choice responses for response “a,” representing the structural frame; response “b,” representing the human resource frame; response “c,” representing the political frame; and response “d,” representing the symbolic frame. The frame with the highest score represented the favored frame of the administrator, as judged by the faculty member.

Results are presented in Table 2 for faculty perceptions of favored frame usage by their nursing school administrators.

Table 2.

Faculty Perceptions of Favored Frame Usage by Nursing School Administrators

<u>Leadership Frame</u>	<u>No. of Faculty</u>	<u>Percent</u>
<u>Structural</u>	<u>95</u>	<u>30.8</u>
<u>Human Resource</u>	<u>89</u>	<u>28.9</u>
<u>Political</u>	<u>81</u>	<u>26.3</u>
<u>Symbolic</u>	<u>43</u>	<u>14.0</u>

n=308 who showed preference to one frame (no tie scores with another frame preference)

The structural frame was the frame identified as being the frame favored by the largest number of nursing school administrators, followed next by the human resource frame. The political frame was the third favored and the symbolic frame was perceived as the least favored by the nursing school administrators. Eight respondents chose not to answer this section of the survey. Of note, also, is the fact that eleven surveys had responses that resulted in tie scores for favored frames. Of those, two respondents had equal scores in the structural and human resource frames; four favored equally structural and political over human resource and symbolic frames; two favored equally the human

resource and political frames; one favored both political and symbolic frames; and one favored equally the human resource and symbolic frames. One response resulted in a three way tie for structural, human resource, and political frames.

Research question two: How many frames do nursing school administrators use?

This question was investigated in two parts. The first part of the investigation utilized data obtained through Section I: Leader Behaviors, on the Leadership Orientations (Other) Instrument, where the four frames were represented by eight items that corresponded to separate dimensions of leadership. Items 1, 5, 9, 13, 17, 21, 25, and 29 represent the structural frame. The human resource frame is reflected in items 2, 6, 10, 14, 18, 22, 26, and 30. The political frame is measured through items 3, 7, 11, 15, 19, 23, 27, and 31 and the symbolic frame through items 4, 8, 12, 16, 20, 24, 28, and 32. Respondents were asked to rate the degree to which the nursing school administrator exhibited leader behavior on a 5 point-Likert scale (1 = *Never*, 2 = *Occasionally*, 3 = *Sometimes*, 4 = *Often*, 5 = *Always*). Mean scores for each frame subset were calculated. Consistency in leadership frame use was operationally defined as a mean rating of 4.0 or above (at levels of *often* or *always*) for the given frame subsets.

From this data, the total number and percent of the faculty members who endorsed designated frames as being used at the predetermined value by their nursing school administrators was determined. This analysis is presented in Table 3. As may be noted in the table, the structural frame was endorsed as being consistently utilized by 52.9 percent of the nursing faculty rating the nursing school administrators and was not endorsed by 47.1 percent. The human resource frame was endorsed by 49.2 percent and

was not endorsed by 50.8 percent. Nursing faculty endorsed 45.3 percent of the nursing school administrators as consistently using the political frame and 54.7 percent as not consistently using it while 48.6 percent endorsed nursing school administrators as using the symbolic frame and 51.4 percent as not.

The structural frame was endorsed as being the frame nursing school administrators used most. It was followed by the human resource frame, the symbolic frame, and the political frame. The results of this analysis are presented in Table 3.

Table 3.

Endorsement of Frame Use by Administrators as Perceived by the Nursing Faculty

(n=327)

Leadership Frame	Number Endorsing	Percent Endorsing	Number Not Endorsing	Percent Not Endorsing
Structural	173	52.9	154	47.1
Human Resource	161	49.2	166	50.8
Political	148	45.3	179	54.7
Symbolic	159	48.6	168	51.4

The second piece of the analysis for this research question was accomplished through the calculation of the Multi-frame Index (MFI), again utilizing data from Section I: Leader Behaviors, on the Leadership Orientations (Other) Instrument. The Multi-frame Index (MFI) was calculated by first averaging the scores for each scale in this section of the LOI and then determining how many reached the predetermined threshold. Scale scores equivalent to, or greater than “often” (value=4) set the threshold for qualifying consistent usage of the frame by the administrator. The number of scales with

a mean response value of 4.0 or greater defined the value of the MFI. An MFI score of 1 designated an administrator as single-framed, while a score of 4 indicated threshold-level use of all four perspectives. The results of this analysis are presented in Table 4.

Table 4.

Faculty Perceptions of Frame Use by Nursing School Administrators

MFI	No. of Faculty	Percent
0 = No frame use	109	33.5
1 = Single frame use	40	12.3
2 = Dual frame use	34	10.5
3 = Multi-frame use (3 frames)	36	11.1
4 = Multi-frame use (4 frames)	106	32.6

The leadership frame classification of no frame usage was reported with the greatest frequency at 33.5 percent. Nursing school administrators perceived to have consistent usage in all four frames, at 32.6 percent, closely followed. Of the single frame classifications (12.3%), faculty perceived nursing school administrators to use the structural frame the most (5.8%), followed by the human resource frame (3.4%), the symbolic frame (2.2%), and finally the political frame (0.9%).

Of the dual frame classifications (10.5%), the structural and human resource frame combination was the most frequent (3.4%), followed by the structural and political combination (2.5%), then the political and symbolic (2.2%), the human resource-symbolic (1.2%), and lastly the human resource-political and structural-symbolic (both at 0.6%).

Multi-frame usage was declared when the nursing school administrators were judged to have consistent frame use in either 3 or 4 frames as evidenced by MFI scores of 3 or 4. One hundred and seven respondents (75.4%) with multi-frame usage were evaluated by their faculty as using all 4 frames. Thirty-five respondents (24.6%) of the multi-frame users were judged to use 3 frames. Table 5 demonstrates the entire frequency distribution by leadership frame classification.

Table 5.

Frequency Distribution by Leadership Frame Classification

<u>Leadership Frame Classification</u>	<u>Frequency</u>	<u>Percent</u>
No Frame	109	33.5
Structural	19	5.8
Human Resource	11	3.4
Political	3	0.9
Symbolic	7	2.2
Structural-Political	8	2.5
Human Resource-Symbolic	4	1.2
Political-Symbolic	7	2.2
Structural-Human Resource	11	3.4
Human Resource-Political	2	0.6
Structural-Symbolic	2	0.6
Human Resource-Political-Symbolic	9	2.8
Structural-Human Resource-Symbolic	14	4.3
Structural-Political-Symbolic	9	2.8
Structural-Human Resource-Political	3	0.9
All Four Frames	107	32.9

Research question three: Is there a relationship between the favored frame choice of nursing school administrators' (as measured by their nursing faculty members) and the perception of the administrator's leadership effectiveness?

The categorical relationships of favored frame choice and faculty perception of administrative leadership effectiveness were first examined through the use of Pearson's chi-square. The four frames were categorized by structural, human resource, political, and symbolic designations, as determined from the favored frame choice identified in Research Question 1.

Leadership effectiveness scores were categorized in one to five rankings (from bottom 20% for a 1 ranking, to middle 20% for a 3 ranking, to top 20% for a 5 ranking) from the single item, overall effectiveness as a leader item, on the LOI. Pearson's chi-square was computed to test whether the variables were independent. Table 6 illustrates for each variable, the number of cases that fell into each combination of categories and the expected count if variables were independent.

Table 6.

Expected and Calculated Crosstabulations for Leadership Frames and Leadership Effectiveness Scores

<u>Favored Frame</u>		<u>Leadership Effectiveness Score</u>					<u>Total</u>
		1	2	3	4	5	
Structural	Count	17	4	23	23	28	95
	Exp.Count	8.4	5.9	19.2	25.7	35.9	95.0
Human Resource	Count	0	3	16	33	36	88
	Exp.Count	7.7	5.4	17.8	23.8	33.3	88.0
Political	Count	10	9	20	20	22	81
	Exp.Count	7.1	5.0	16.4	21.8	30.6	81.0
Symbolic	Count	0	3	3	7	30	43
	Exp.Count	3.8	2.7	8.7	11.6	16.2	43.0
Total	Count	27	19	62	83	116	307
	Exp.Count	27.0	19.0	62.0	83.0	116.0	307.0

The resulting chi-square analysis (see Table 7) with a chi-square value of 53.88 and an associated p value of .000 tells us that the variables of favored frame choice and administrative leadership effectiveness have a statistical dependence between them. The likelihood ratio is a confirmatory test that is sometimes preferred when samples are small. It, too, demonstrates significance with $p < .05$.

Table 7.

Chi-Square Test of Independence: Favored Frame Choice & Perceptions of Administrative Leadership Effectiveness

	Value	df	Significance (p value)
Pearson Chi-Square	53.88	12	.000
Likelihood Ratio	62.034	12	.000
Number of Valid Cases	307		

It should be noted that two cells (10%) in the contingency table had expected counts of less than five. The minimum expected count is 2.66. Generally, statisticians accept that up to 20% of expected frequencies may be below 5. Nonetheless, some statistical power can be lost with counts below 5, resulting in failure of the test to detect genuine effects (Field, 2005). However, in this case, evidence is supported for statistical dependence between favored frame choice and perceptions of leadership effectiveness despite the low counts in two cells.

Once chi-square testing showed dependence between favored frame and leadership effectiveness, the average values for leadership effectiveness were calculated for each individual frame designation. ANOVA was used to test whether or not mean leadership effect was the same across all frame designations. Table 8 illustrates the analysis of variance results for mean difference between groups. The F value of 13.115 with an associated p value <.05 suggests that a significant difference exists among the means.

Table 8.

Analysis of variance between leadership frames and leadership effectiveness

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	55.539	3	18.513	13.115	.000
Within Groups	427.699	303	1.412		
Total	483.238	306			

A post-hoc Tukey HSD was then calculated (Table 9) to provide more information regarding which groups differed, and in what ways, by displaying subsets of groups that have statistically similar means. Tukey, likewise, by separation of subsets indicates difference between means exists at the $p < .05$ level.

Table 9.

Tukey HSD for Leadership Effectiveness related to Favored Frame Usage

Frame	No.	Subset for alpha = .05	
		Means-Grp. 1	Means Grp. 2
Structural	95	3.43	
Political	81	3.43	
Human Res.	88		4.16
Symbolic	43		4.49
Sig. (same group means)		1.000	.361

These results indicate that means for the structural frame group and the political frame group are the same (p value 1.000) and the means for the human resource and symbolic frame groups are statistically similar (p value .361). However, the subgroups of structural and political have significantly different means than do the subgroups of human

resource and symbolic frames. In summary, the favored choices of the human resource and symbolic frames are associated with higher and similar mean leadership effectiveness ratings, while the structural and political frames have lower mean leadership effectiveness ratings and are similar to one another.

Research question four: Is there a relationship between the favored frame choice of nursing program administrators' (as measured by their nursing faculty members) and the nursing faculty members' general job satisfaction or satisfaction with their supervisor?

Like the previous question, the categorical variables were examined through the use of Pearson's chi square and analysis of variance. Pearson's chi square was computed to determine whether there was a significant association between the two categorical variables of favored frame choice and the satisfaction indices. Once again, the four frames were categorized by structural, human resource, political, and symbolic designations, as determined from the favored frame choice identified in Research Question 1. General job satisfaction was categorized into high, neutral and low satisfaction categories by dividing the 24-point scale from the JIG instrument into thirds. Satisfaction with the supervisor was similarly classified into high, neutral and low satisfaction categories by dividing the 15-point scale from the satisfaction with the supervisor segment of the JDI instrument into thirds.

Relationship between nursing school administrators' favored frame choice and general job satisfaction of faculty members

The Chi-square test of independence between the categorical variables of favored frame choice and nursing faculty members' general job satisfaction provided no

statistical support for dependence with a Chi-square value of 1.131 and a significance level of .980. (See Table 10.) However, this analysis is flawed because 4 cells (33.3%) have expected counts of less than 5. The minimum expected count is 1.18. Though statisticians routinely accept that 20% of expected frequencies may be below 5 (Field, 2005), over 33% would generally result in failure of the test to detect genuine effects. Table 10.

Chi Square Test of Independence: Favored Frame Choice & Nursing Faculty

<u>General Job Satisfaction (N=290)</u>			
	Value	df	Asymp. Sig.
Pearson Chi-Square	1.131	6	.980
Likelihood Ratio	1.139	6	.980

Since it is not possible to increase the sample size (having closed the internet survey) and combining categories of frames or satisfaction ratings to increase the cell size is illogical, the researcher chose to apply an ANOVA test to the quantitative data that were obtained for the variables of favored frame choice and general job satisfaction (using the 24 point scale). The ANOVA provided comparison of group means and results are reported in Table 11. With the calculated F-ratio of .748 and p-value of .524, the ANOVA failed to provide statistical evidence for a difference in mean scores of general job satisfaction between the various frames.

Table 11.

Analysis of variance between favored frame of administrator and general job satisfaction

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	55.107	3	18.369	.748	.524
Within Groups	7024.096	286	24.560		
Total	7079.203	289			

Relationship between nursing school administrators' favored frame choice and faculty members' satisfaction with supervisor

The categorical variables of favored frame choice and faculty members' satisfaction with their supervisor were also analyzed for independence through Pearson's chi-square. The four frames were categorized using Bolman and Deal's labels of structural, human resource, symbolic, and political. Satisfaction with supervisor was categorized as high, neutral, or low (based upon the upper, middle, and lower 1/3 of ratings on the Satisfaction with Supervisor facet of the JDI instrument). Table 12 presents this data.

Table 12.

Chi Square Test of Independence: Favored Frame Choice & Nursing Faculty

Satisfaction with Supervisor (N=301)

	Value	df	Asymp. Sig.
Pearson Chi-Square	35.856	6	.000
Likelihood Ratio	42.922	6	.000

Unlike the independent relationship shown earlier between favored frame choice and general job satisfaction, the Pearson's Chi-Square value of 35.856 (p value $<.05$) for the variables of favored frame choice and satisfaction with supervisor does demonstrate some relationship between the variables. Only one cell (8.3%) had an expected count less than 5, with a minimum expected count of 4.52. This provides statistical support for dependence between the categorical variables of favored frame choice and nursing faculty members' satisfaction with the supervisor.

An ANOVA was then run to test whether mean faculty supervision scores were the same across favored frame designations. See Table 13.

Table 13.

Analysis of variance between favored frame of administrator and satisfaction with the supervisor

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	781.182	3	260.394	15.337	.000
Within Groups	5042.539	297	16.978		
Total	5823.721	300			

The ANOVA analysis, with an F-value of 15.337 and an associated p value $<.05$, suggests that a significant difference does exist between the means.

Because of the failure to provide statistical evidence of independence between favored frames of administrator and satisfaction with the supervisor, a post-hoc Tukey HSD was calculated (Table 14) to provide more information regarding which groups differed, and in what ways, by displaying subsets of groups that have statistically similar

means. Tukey, likewise, by separation of subsets indicates difference between means exists at the $p < .05$ level.

Table 14.

Tukey HSD for satisfaction with supervisor related to favored frame choice

Frame	N	Subset for alpha = .05		
		1	2	3
Political	81	10.10		
Structural	94	11.94	11.94	
Symbolic	40		12.63	12.63
Human Res.				14.38
<u>Sig.</u>		<u>.050</u>	<u>.768</u>	<u>.066</u>

From the Tukey analysis, we can determine that the administrator-favored choices of symbolic and human resources frames were associated with mean higher satisfaction with supervisor scores (means of 12.63 and 14.38 respectively) than were the statistically lower means of the administrator-favored political and structural frames (with means of 10.10 and 11.94). The political and structural frames were statistically similar to each other (p value of .050), as were the human resource and symbolic frames (p value of .066). Some overlap is noted with the structural frame being statistically similar in mean leadership scores to both the political and symbolic frames, making a less than perfect differential by Tukey's due to this overlap.

Research question five: Is there a relationship between the nursing school administrators' cognitive complexity (as measured by their multi-frame index score) and the nursing faculty members' general job satisfaction or satisfaction with their supervisor?

The categorical variables of MFI and general job satisfaction were analyzed for independence through Pearson's chi-square. The MFI was categorized as zero through 4 representing the number of frames with mean scores of 4 or higher (as the threshold for consistent usage) on Section 1 of the LOI. The MFI score of 0 represented no consistent use of any of the frames, a score of 1 represented consistent use of one frame designation, a score of 2 represented consistent use of 2 frames, a score of 3 represented consistent use of 3 frames, and a score of 4 represented consistent use of all four frames.

General job satisfaction was categorized into high, neutral and low satisfaction categories by dividing the 24-point scale from the JIG instrument into thirds. Satisfaction with the supervisor was similarly classified into high, neutral and low satisfaction categories by dividing the 15-point scale from the satisfaction with the supervisor segment of the JDI instrument into thirds.

Relationship between the Nursing School Administrators' Multi-Frame Index

Scores and General Job Satisfaction of Faculty Members

The relationship between the nursing school administrators' MFI scores and the faculty members' general job satisfaction was first examined through Pearson's Chi-Square analysis. Pearson's chi-square was computed to test whether statistical independence could be demonstrated between MFI and faculty satisfaction. Table 15 illustrates the Chi-square computations.

Table 15.

Chi Square Determination of Association between MFI & General Job Satisfaction

	Value	df	Sig. (p value)
Pearson Chi-Square	31.535	8	.000
Likelihood Ratio	35.012	8	.000
Number of Valid Cases	304		

Since the significance value was small ($p < .05$), the analysis tells us that the variables of multi-frame index and general job satisfaction cannot be assumed to be independent. The likelihood test is also considered since it is sometimes considered the preferred test for smaller samples (Field, 2005), and yields similar results. Unfortunately, the chi-square is compromised by the fact that 7 cells (46.7%) have expected counts less than 5 and a minimum expected count of .95. Statistical power can be lost with counts below 5, which can result in failure of the test to detect genuine effects (Field). In this case, however, significant effects were demonstrated despite the smaller cell counts.

An analysis of variance (ANOVA) was run to determine whether mean job satisfaction scores were the same across MFI designations. Table 16 illustrates the results.

Table 16.

Analysis of variance between administrator's MFI & General Job Satisfaction

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	75.423	2	37.711	14.341	.000
Within Groups	791.512	301	2.630		
Total	866.934	303			

The F value of 14.341 suggests significance, as does the associated p value, which is less than .05. Thus, the ANOVA provides evidence of significant difference existing between the means. Therefore, a post-hoc Tukey HSD was then calculated (Table 17) to provide more information regarding which groups differed and in what ways by displaying subsets of groups that demonstrated similar means. Tukey, likewise, by separation of subsets indicates difference between means exists at the $p < .05$ level.

Table 17.

Tukey HSD for General Job Satisfaction related to Administrator's MFI Scores

MFI No.	N	Subset for alpha = .05	
		1	2
0	102	18.01	
1	40	20.05	20.05
3	32		21.53
2	33		21.97
4	97		22.03
Sig.		.196	.221

The Tukey analysis resulted in two subsets of groups, each containing statistically similar means. The first subset contains both nursing school administrators with no consistent frame usage and single frame users – indicating similar means between these two groups (p value of .196). The second subset contains all frame users except those with no frame usage identified (p value of .221). These results demonstrate that no frame users have similar means to single frame users but not to the dual and multi-frame user

categories. Thus, the dual and multi-frame users really only have significantly different means for general job satisfaction than the no-frame users.

*Relationship between Nursing School Administrators' Multi-Frame Index Scores
and Faculty Member's Satisfaction with their Supervisor*

The research question also asks the investigator to explore the relationship between the nursing school administrators' MFI scores and the faculty members' satisfaction with their supervisors. Pearson's chi-square was computed to test whether statistical dependence could be demonstrated between MFI and satisfaction with the supervisor. Table 18 illustrates the Chi-square computations.

Table 18.

Chi- Square Association between MFI & Satisfaction with Supervisor

	Value	df	Sig. (p value)
Pearson Chi-Square	72.688	8	.000
Likelihood Ratio	75.050	8	.000
Number of Valid Cases	317		

The p-value of <.05 demonstrates that there is a relationship that cannot be shown to be independent between the nursing school administrators' MFI and the faculty members' satisfaction ranking of their supervisor. Five cells (33.3%) had expected counts less than five with the minimum expected count of 3.96, which can result in a loss of statistical power and the test failing to detect genuine effects (Field, 2005).

However, quantitative data measuring satisfaction with the supervisor is available, allowing an ANOVA to be run on that data. The ANOVA tested whether mean rankings

of satisfaction with the supervisor were the same across MFI designations. The ANOVA yielded a significant F of 26.593, with an associated p value <.05.

Table 19.

Analysis of variance between administrator’s MFI & satisfaction with supervisor

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1620.968	4	405.242	26.593	.000
Within Groups	4754.477	312	15.239		
Total	6375.445	316			

A post-hoc Tukey HSD was calculated to provide further information regarding which groups differed, and in what ways, by displaying subsets of groups that have statistically similar means. Tukey, likewise, by separation of subsets indicates difference between means exists at the p<.05 level. Table 20 illustrates Tukey results:

Table 20.

Tukey HSD for Satisfaction with the Supervisor related to Administrator’s MFI

MFI No.	N	Subset for alpha = .05	
		1	2
0	106	9.03	
1	40		12.48
2	34		13.21
4	104		14.04
3	33		14.45
Sig.		.100	.096

The Tukey results demonstrate that the means for the no frame group, through the

lone placement in column 1, are significantly different than all of the other groups (clustered in column 2). Generally speaking, one can identify the trend that the higher the MFI, the greater the mean for satisfaction (with the exception of the 3 and 4 frame groups, which could be combined as a multi-frame grouping). However, though the linear trend is evident, the means for satisfaction with the supervisor for the single, dual, and multi-frame groups suggest no statistically significant difference between them (p value of .096).

Research question six: Is there a relationship between the perceived leadership effectiveness of nursing school administrators and the administrators' cognitive complexity (as measured by their multi-frame index score)?

The relationship between the categorical variables of the nursing school administrators' MFI scores and their leadership effectiveness ratings was also examined through Pearson's chi square. Table 21 illustrates the results.

Table 21.

Chi-Square Association between MFI & Evaluation of Leadership Effectiveness

	Value	df	Sig. (p value)
Pearson Chi-Square	241.08	16	.000
Likelihood Ratio	260.065	16	.000
Number of Valid Cases	321		

With the Chi-Square value of 241.08 and associated p-value <.05, the chi-square test for independence provides support for dependence between the multi-frame index of the nursing school administrators and the leadership effectiveness ratings. Again, we have the issue of low cell counts with 6 cells (24.0%) having expected counts less than 5

and the minimum expected count of 2.22. Table 22 illustrates the number of cases that fell into each combination of categories and the expected count if the null hypothesis was accepted.

Table 22.

Expected and Calculated Crosstabulations for MFI and Leadership Effectiveness Scores

<u>MFI No.</u>		<u>Leadership Effectiveness Score</u>					<u>Total</u>
		1	2	3	4	5	
None	Count	29	18	42	15	5	109
	Exp.Count	10.5	7.1	21.7	29.5	40.1	109.0
Single	Count	0	2	12	20	6	40
	Exp.Count	3.9	2.6	8.0	10.8	14.7	40.0
Dual	Count	0	0	7	14	13	34
	Exp.Count	3.3	2.2	6.8	9.2	12.5	34.0
Multi (3)	Count	0	0	1	21	12	34
	Exp.Count	3.3	2.2	6.8	9.2	12.5	34.0
Multi (4)	Count	2	1	2	17	82	104
	Exp.Count	10.0	6.8	20.7	28.2	38.2	104.0
Total	Count	31	21	64	87	118	321
	Exp.Count	31.0	21.0	64.0	87.0	118.0	321.0

The table illustrates difficulty in identifying patterns or trends for this data. Of particular interest, however, is the much higher than expected counts for high (ranking of

5) leadership effectiveness in the Multi-4 category and the much lower than expected count in the high (ranking of 5) leadership effectiveness category for no-frame usage. In fact, individual chi-squares performed on these two cells demonstrate that, from the total of 25 cells, one-third of the contribution to the total chi-square comes from these 2 cells (chi-square values of 30.72 and 50.22 respectively).

This phenomenon could potentially be explained by the halo effect, a form of subjective bias that exists when the rater unconsciously is influenced by one characteristic in judging other unrelated characteristics to the subject under study (Polit & Hungler, 1999). The high rating in the Multi-4 category may be the result of the error of leniency, where the tendency for the observer to rate everything positively occurs. The low counts in the no frame category may be partially explained by the error of severity, the contrasting tendency to rate too harshly (Polit & Hungler).

The construction of the Leader Behaviors section of the LOI may predispose toward this bias since respondents are not required to discriminate levels of skill between frames. For example, the respondent has the ability to rate each of the behaviors of the subject as a 5, indicating that every statement is *Always* true for the subject of study. The tool's instructions ask the participant to be discriminating, but the instrument is not designed to require it. In contrast, on the Leadership Style portion of the instrument, the prompts must be ranked 1 through 4. This ranking requires more discrimination and decreases the potential for the halo effect.

Because of the potential bias issues identified in the Chi-square analysis, a follow-up ANOVA (Table 23) was run from the quantitative data to determine whether one

could holistically declare differences between means of leadership effectiveness across MFI designations.

Table 23.

Analysis of variance between MFI and leadership effectiveness ratings.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	271.387	4	67.847	84.683	.000
Within Groups	253.174	316	.801		
Total	524.561	320			

The ANOVA's F score of 84.683 and associated p-value of <.05 suggests that a statistically significant difference exists. Therefore, a Tukey HSD post-hoc procedure was performed to determine through paired t-tests where subsets of same and different means were found. By separation of subsets, the Tukey HSD indicates difference between means exists at the p<.05 level.

Table 24 illustrates visually, with four subsets of similar means, a trend for increasing leadership effectiveness ratings when MFI scores are higher. From this procedure, one can say that nursing school administrators with MFI scores of 3 or 4 have statistically significantly higher mean leadership effectiveness scores than do those with MFI scores of 0 or 1. Thus, multi-frame administrators are believed by their faculty members to be more effective leaders than are no-frame or single frame users.

Table 24.

Tukey HSD for leadership effectiveness related to supervisor MFI

		Leadership Effectiveness					
		MFI	N	Subset for alpha = .05			
		Number		1	2	3	4
Tukey	0	109	2.53				
HSD	1	40		3.75			
	2	34		4.18	4.18		
	3	34				4.32	4.32
	4	104					4.69
	Sig.		1.000	.132	.927	.252	

Summary of the Findings

Three hundred twenty-seven full-time, tenured and untenured faculty members from CCNE-accredited bachelors and masters level schools of nursing returned usable surveys for this study. The members of the sample were demographically similar to the population of 13,311 faculty members reported by the American Association of Colleges of Nursing in the 2007-2008 academic year (Fang, Htut, & Bednash, 2008) in the characteristics of highest earned degree, academic rank, and tenure status.

The Bolman and Deal frame identified by faculty members as being most favored by their administrator was the structural frame; followed respectively by the human resource frame, the political frame, and lastly, the symbolic frame. Faculty members endorsed 52.9 percent of their nursing school administrators as using the structural frame,

49.2 percent using the human resource frame, 48.6 percent using the symbolic frame, and 45.3 percent using the political frame.

Upon examination of the *number* of frames consistently used by nursing school administrators, nursing faculty members identified no frame use as the most frequent category, at 33.5 percent. The second most common frame usage was the all four-frame category, at 32.6 percent. Single-frame use was reported at 12.3 percent, followed by 3-frame use at 11.1 percent, and dual frame use at 10.5 percent.

Evidence of dependence was shown between the favored frame choice of the nursing administrator and the faculty members' evaluation of leadership effectiveness of that administrator. The administrator-favored choices of the human resource and symbolic frames were associated with higher and similar mean leadership effectiveness ratings, while the structural and political frames were shown to have lower mean leadership ratings that were similar to one another.

Analysis failed to provide statistical evidence for a difference in mean scores of general job satisfaction between the various favored frame choices. However, there was significant statistical support for dependence between the variables of favored frame choice and satisfaction with the supervisor. The administrator-favored choices of symbolic and human resources frames were associated with higher mean satisfaction with supervisor scores than were the administrator-favored political and structural frames.

The Multi-frame index, used as a measure of the administrator's cognitive complexity, was explored for its relationship to faculty members' general job satisfaction and satisfaction with the supervisor. Unlike the favored frame choice, statistically significant relationships were found between the MFI and *both* general job satisfaction

and satisfaction with the supervisor. Dual and multi-frame nursing school administrators were associated with statistically higher mean levels of general job satisfaction of the faculty members than were the no-frame use administrators. Mean scores for satisfaction with the supervisor were shown to be statistically significantly lower when the administrator had a multi-frame index of 0 than in any of the other frame usage categories.

There was also found to be an association between the multi-frame index of the nursing school administrators and the means for the faculty members' assessment of the administrators' leadership effectiveness. Nursing school administrators with multi-frame capacity had significantly higher means for leadership effectiveness than did the leaders with no-frame or single-frame usage.

A discussion of the findings, including implications, conclusions, and recommendations for further study will be presented in Chapter 5.

CHAPTER 5: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

*“The significant problems we face cannot be solved
at the same level of thinking we were at when we created them.”*

(Albert Einstein, as cited in Covey, 1989, p. 42)

Introduction

The purpose of this study was to explore baccalaureate and graduate nursing faculties' perceptions of their nursing school administrators' use of Bolman and Deal's leadership frames (1984, 1991, 1997), and the relationship of the administrators' frame usage to faculty members' general job satisfaction, satisfaction with their supervisor, and perceptions of administrative leadership effectiveness. The focus of this chapter is to summarize the study and discuss the findings in terms of each research question.

For each research question, conclusions are drawn based on the synthesis and evaluation of the current research and in consideration of findings from previous studies. The implications of the study's findings for faculty retention and recruitment, the education of nursing school administrators, and the future of nursing education are discussed. Limitations of the study, as well as recommendations for future research, are also included.

Rationale for the Study

By the year 2020, a projected shortfall of one million nurses is expected (Fox, 2000). Despite this staggering shortage of an essential component of the medical team, nursing schools across the country are rejecting highly qualified applicants due to the

dwindling supply of nursing faculty (Bellack, 2004; Milone-Nuzzo & Lancaster, 2004). Potential new nursing faculty members are declining opportunities in nursing education for a number of significant reasons (AACN, 2003), while the largest group of current faculty – those over age 50 (Fang, Htut, & Bednash, 2008) – is beginning to retire (AACN, 2003).

Many longstanding and increasingly complicated challenges face the leaders in nursing education today – including issues related to recruitment and retention of quality nursing faculty (Donohue, 1986; Gormley, 2003). Nursing pundits speculate that true solutions for these complex problems will only be realized through dramatic reform and innovation. According to experts, that kind of transformation requires a clearly articulated vision for the future of nursing education (Wieck, 2003).

Leading the profession forward in a profound manner will require cognitively complex leaders, capable of examining multiple perspectives in order to successfully instigate and manage change. Unfortunately, nursing leaders in higher education are at a disadvantage because they generally have no formal leadership education or training (Austin et al., 1997; Ryan & Irvine, 1996). The quality of organizational leadership has long been heralded as influencing job satisfaction –increasing retention of employees, favorably impacting recruitment of new employees (Brendtro & Hegge, 2000; DeYoung & Bliss, 1995), and reducing intents to leave positions (Johnsrud & Edwards, 2001; Rosser, 2004).

The importance of this study was to fundamentally add to the limited existing knowledge regarding the nursing school administrators' capacity for multi-framing and the association with faculty members' perceptions of job satisfaction, satisfaction with

the supervisor, and leadership effectiveness. The findings may provide nursing educators and nursing school administrators insight into the frame usage of nursing school leaders and subsequently, opportunities for leadership development strategies that could enhance the abilities of nursing's leaders.

Summary of the Findings

Three hundred twenty-seven full-time, tenured and untenured faculty members from CCNE-accredited bachelors and masters level schools of nursing returned usable surveys for this study. The members of the sample were demographically similar to the population of 13,311 faculty members reported by the American Association of Colleges of Nursing in the 2007-2008 academic year (Fang, Htut, & Bednash, 2008) in the characteristics of highest earned degree, academic rank, and tenure status.

The Bolman and Deal frame identified by faculty members as being most favored by their administrator was the structural frame; followed respectively by the human resource frame, the symbolic frame, and lastly, the political frame. Faculty members endorsed 52.9 percent of their nursing school administrators as using the structural frame, 49.2 percent using the human resource frame, 48.6 percent using the symbolic frame, and 45.3 percent using the political frame.

Upon examination of the *number* of frames consistently used by nursing school administrators, nursing faculty members identified no frame use as the most frequent category, at 33.5 percent. The second most common frame usage was the all four-frame category, at 32.6 percent. Single-frame use was reported at 12.3 percent, followed by 3-frame use at 11.1 percent, and dual frame use at 10.5 percent.

Evidence of dependence was shown between the favored frame choice of the nursing administrator and the faculty members' evaluation of leadership effectiveness of that administrator. The administrator-favored choices of the human resource and symbolic frames were associated with higher and similar mean leadership effectiveness ratings, while the structural and political frames were shown to have lower mean leadership ratings that were similar to one another.

Analysis failed to provide statistical evidence for a difference in mean scores of general job satisfaction between the various favored frame choices. However, there was significant statistical support for dependence between the variables of favored frame choice and satisfaction with the supervisor. The administrator-favored choices of symbolic and human resources frames were associated with higher mean satisfaction with supervisor scores than were the administrator-favored political and structural frames.

The Multi-frame Index, used as a measure of the administrator's cognitive complexity, was explored for its relationship to faculty members' general job satisfaction and satisfaction with the supervisor. Statistically significant relationships were found between the MFI and *both* general job satisfaction and satisfaction with the supervisor. Dual and multi-frame nursing school administrators were associated with statistically higher mean levels of general job satisfaction of the faculty members than were the no-frame use administrators. Mean scores for satisfaction with the supervisor were shown to be statistically significantly lower when the administrator had a multi-frame index of 0 than in any of the other frame usage categories.

There was also found to be an association between the multi-frame index of the nursing school administrators and the means for the faculty members' assessment of the

administrators' leadership effectiveness. Nursing school administrators with multi-frame capacity had significantly higher means for leadership effectiveness than did the leaders with no-frame or single-frame usage.

Limitations

Several limitations of the present study are recognized and presented herein. All studies conducted using the survey method for data gathering are dependent upon the truthful responses of the survey respondents. Questions are closed-ended with fixed alternatives. This requires the respondent to interpret the questions and limits the subjects' opportunities for full expression. Scope is emphasized over depth and there is some degree of measurement error that can affect interpretation of results (Kerlinger, 1986).

Additionally, this study utilized online surveys because of their low cost, time-saving features, and the increased willingness of many to participate in this type of survey. Yet, limitations are noted in the use of on-line surveys. Though most faculty members have computer access today, not all are comfortable using the computer or using a particular web survey methodology (NLN, 2003). Self-selection bias is another limitation of online survey research. Some individuals are just more likely to complete online surveys than are others. What is more, due to the volume of on-line requests, participants may be desensitized to worthwhile survey requests (Wright, 2005). Though measures were taken to reduce the possibility, on-line surveys do have greater potential for multiple responses by the same participant (Konstan et al., 2005).

Also, the leadership styles of the nursing school administrators were measured by the perception of the nursing faculty and were not measured as a perception by the

administrator personally (Kerlinger, 1986). This approach was used because research has suggested that the validity of self ratings of leadership is generally lower than are ratings of others (Birnbaum, 1992). However, the study is still limited by the accuracy of the perceptions. Those in the inner circle of an organization may not clearly or objectively be able to assess leadership effectiveness due to their own proximity. It is also limited in that the perceptions are restricted to the setting in which the rater is familiar with the nursing school administrator being rated and cannot necessarily be considered to represent leader behavior in all settings. Additionally, self-selection could bias the results if those nursing school administrators confident in their own leadership abilities proved to be more likely to participate by forwarding the survey to faculty than those who questioned their leadership skills and declined participation.

The reliability and validity of the leadership style instrument, Bolman and Deal's Leadership Orientations Instrument (Other), imposed a limitation on the results of the study (Kerlinger, 1986). The same limitation is true of the job satisfaction measurement instruments, the abridged Job Descriptive Index and the abridged Job In General scale. The job satisfaction questionnaires were not specifically designed to measure satisfaction in academia, rather to be an instrument that could be broadly utilized in a range of job classification and organizations (Balzer et al., 2000). Using the instrument in a fashion other than that for which it was designed may alter validity and reliability.

Data in this study were from faculty members in CCNE-accredited baccalaureate and graduate programs and the results may not be generalized to faculty in non-accredited or associate degree programs. All faculty members surveyed were full-time nursing faculty; thus, results may not be generalized to part-time nursing faculty.

Design methodology also presented some limitations. Nursing school administrators of the CCNE-accredited schools were not asked to disclose their decision to participate; rather, if they chose to participate, they simply forwarded the survey instruments to the eligible faculty. Even though the study was designed to be a national study, because the researcher is unable to distinguish total number and characteristics of participating schools, the ability to generalize results is limited.

Further limitation on the ability to generalize research results exists because the researcher was limited in comparing the sample to the overall population due to not being able to categorize demographic data collection in a manner exactly matching that collected by the AACN (due to restrictions of the internet survey format).

Discussion of Research Findings

Discussion on the findings for each of the research questions are based on the evidence produced from the survey results and will be specifically directed to each research question. Findings were grounded in literature on cognitive and behavioral complexity in organizational leadership (Bensimon, 1991; Birnbaum, 1988; Bolman & Deal, 1997; Del Favero, 2006; Goffman, 1974; Mosser, 2000; Quinn, 1991; Quinn et al., 2003; Senge, 1990; Small, 2000).

The findings of this study make a significant contribution to the existing literature on nursing school administrators' leadership skills. Evidence of the importance of leaders' abilities to multi-frame is supported. Implications for nursing practice and research will follow under separate heading.

Research question one: Which of Bolman and Deal's identified four leadership frames do nursing faculty members perceive as the favored frame choice of their nursing program administrator?

The results of research question one indicate that nursing faculty members perceive that their chairpersons favor use of the structural frame the most, at 31 percent. Structural frame leaders are logical, clear, and factual. Division of labor and coordination of individual activities are key frame processes. The findings of this study contrast with earlier studies by Mosser and Walls (2002) and Small (2002), who found the human resource frame to be the most frequently used, followed by the structural frame.

The human resource frame was identified as the second-most favored frame of nursing school administrators in the current study. Twenty-nine percent identified the human resource frame with the highest ranking for their administrator. Human resource leaders tend to be described as listeners who create environments that foster participation, and are open to new ideas. Nurses, like others in human service organizations, tend to be more naturally comfortable utilizing this frame. By nature of their occupational choice, nurses have made commitments to serve the needs of others. In fact, the term "to nurse" actually evolved from the maternal nurturing acts offered to offspring (Donahue, 1985). Thus, the human resource frame appears to be a rational and natural choice of primary frame use for those whose occupation fundamentally demands attention to the needs of others. Why then, does this study show evidence of the structural frame slightly leading as the preferred frame choice for today's nursing school administrators?

Like Mosser and Walls (2002) and Small (2002), the structural and human resource frames were identified as the top two frame choices of nursing education

leaders. It is possible that as the nursing faculty shortage has become more momentous, leaders may necessarily move from the human resource orientation toward structural tendencies. With fewer faculty available and increasing demands to enroll more students, nursing school administrators must concern themselves with increasing efficiency and precise division of labor among faculty in order to ensure adequate faculty supervision of students in multiple clinical settings – a role necessary to ensure public safety – while maintaining the other essential roles and responsibilities of faculty (including classroom teaching, advising, and research obligations). These priorities may overshadow the leaders' desires to maintain good interpersonal relationships. The goal to ensure good fit between the human and organizational priorities may surrender to the more pressing goal of designing structures and systems that get the job done. The result could be a shift in the frame perspective, from human resource to structural, for the realignment required to meet the changing environment.

Moreover, nurse leaders in academia historically have advanced professionally from the practice world to the academic arena, and as such, are familiar from their past occupational experience in working within a highly structured environment such as a hospital. In the medical practice setting, roles are formalized and specialized. Doctors are quite often viewed as “captains of the ship” and despite advances in nursing as a profession, nurses still follow orders of physicians. Many rules are necessarily strict and inflexible, such as adhering to the “five rights of medication administration.” It is possible that nurses, who spent a good portion of their careers in this highly structured environment, return to that orientation when resources are scarce and responsibilities many.

The third and fourth favored choices of nursing school administrators were identified as the political and symbolic frames, respectively, at 26 and 14 percent. Political leaders emphasize the importance of building a power base. The political leader's role is to advocate and fight for the objectives of the organization (Bolman & Deal, 1997). Since nursing is a field still dominated by women, who historically have not held status positions of power, privilege or influence, (as evidenced by the fact that women were not allowed to even vote until 1920), it is not surprising that the political frame would be one that might be outside the comfort zone for nurses. Speaking specifically about the medical field, one participant in a study about women and leadership in health care noted, "Doctors have been bred to be dominant by the medical culture, and the reverse isn't true for women in nursing" (Robinson-Walker, 1999, p. 66). But, according to Bolman and Deal (2006), nurses aren't the only leaders shying away from the political dimensions of leadership. The common illusion is that if organizations were run right, they would not require politics.

Nurse educators rated their nursing school administrators' least favored frame usage to be the symbolic frame. Small (2002) also found this to be the least used frame. Since symbolic leaders tend to be inspirational, they successfully promote vision and dedication among the followers. They are able to frame experiences through symbols and values. Obviously, this is an important leadership skill to develop in nursing academia (Green & Ridenour, 2004). It is not, however, a unique finding of deficit among leaders. Bolman and Deal (1991), in a study that sampled educational administrators in U. S. colleges and universities, U. S. public schools, and public schools in Singapore, showed that the symbolic frame was used in fewer than 20 percent of the cases in all three

populations. In later work, Bolman and Deal (2006) identified inattention to the symbolic and political frames as a “debilitating Achilles’ heel” (p. 2) in leadership development.

Research question two: How many frames do nursing school administrators use?

This question was investigated to provide two categories of results from the data.

Endorsed Frame Usage by Nursing School Administrators

First, the total number and percent of faculty members who endorsed their nursing school administrators’ use of designated frames at predetermined threshold levels that represented consistency of usage was calculated. Unlike research question 1 where respondents were asked to discriminate to determine favored frame usage, this data set allowed for the identification of multiple frame usage by nursing school administrators. Despite the different methodology, the results again demonstrated more use of the structural and human resource frames, with 52.9 percent of the faculty endorsing their nursing school administrators’ consistent use of the structural frame and 49.2 endorsing consistent administrative use of the human resource frame.

Consistency of frame usage for the symbolic and political frames ranked third and fourth, at 48.6 and 45.3 percents respectively. Thus, though in research question one, it was shown that more nursing school administrators favor the political frame over the symbolic frame, the faculty identified that the symbolic frame was used slightly more consistently than the political frame.

These results are reasonably congruent with the results in research question one, suggesting that nursing school administrators are more comfortable with, and use more often, the structural and human resource frames; while their comfort and use of the

political and symbolic frames are somewhat lower. An interesting point of this data is that only the structural frame attained endorsement of consistent use at a level over 50 percent (52.9%). Thus, skillful and consistent frame use by nursing school administrators is not evaluated as a skill often seen in any of the frames.

Multi-Frame Index Scores

The second analysis employed to answer this question was accomplished through calculation of the MFI. MFI scores represented the number of frames each administrator was evaluated as using consistently. Section I (Leader Behaviors) from the LOI was used as the basis for the MFI calculations. Nursing school administrators with MFI scores of 0 were labeled as No-Frame Users, meaning they did not reach threshold level for consistent use in any of the four frames; those with MFIs of 1 were labeled as single-frame administrators, meaning they were evaluated by the faculty as using only 1 frame at a predetermined threshold in a consistent manner; those with a 2 score were designed as dual-framed, meaning they were evaluated as using 2 frames at a threshold level in a consistent manner; and 3 and 4 frame leaders were labeled as Multi-framed, using 3 or 4 frames consistently.

Results indicated that the largest percentage of nursing school administrators was evaluated to be no-frame users (33.5%). Previous studies by Mosser and Walls (2002) and Small (2002) demonstrated similar results with no frame usage occupying the status of largest percentage. Small found 31.7 percent of administrators in this category and Mosser and Walls results indicated 39 percent. It is also consistent with Bolman and Deal's (1991a) findings that the number of leaders who used more than two frames was less than 25 percent. The fact administrators in nursing education generally have no

formal training in leadership may contribute to the finding that the largest category was for no-frame use.

Since the no-frame usage was the largest category of users, it seems illogical that the second highest category of MFI in this study was that of Multi-Frame (All-Four) Use at 32.6 percent. Illustratively, in stark contrast, Bolman and Deal (1991) found that only about five percent of educational administrators from their three samples in U. S. colleges and universities, U.S. public schools, and public schools in Singapore, used all four frames. However, the multi-frame use finding in this study is entirely consistent with the findings of Mosser and Walls (2002) and Small (2002). Use of all four frames in Mosser and Walls research was calculated at 22 percent while Small identified it at 24.1 percent – both representing the second highest category of MFI. One potential explanation for the high percentage of multi-frame use among nursing administrators might be found in Del Favero's (2006) study of the relationship between academic discipline and cognitive complexity in academic deans' administrative behavior. From her research, Del Favero concluded that being from an applied field can be seen as an advantage and a potential boost to the effectiveness of academic deans by predisposing them to multi-framing behavior.

But why do the highest numbers fall on the two extremes of the spectrum of no-frame and multi-frame use? The halo effect, a form of subjective research bias that exists when the rater unconsciously is influenced by one characteristic in judging other unrelated characteristics of the subject, could possibly account for this “all or nothing” phenomena of multi-frame and no-frame usage finding. Errors of leniency and errors of

severity exist when raters have tendencies to rate the subject of their observations as universally either high or low (Polit & Hungler, 1999).

Single-frame use was the third highest category in the MFI analysis at 12.3%, again consistent with the rankings of Mosser (2000) and Small (2002). Mosser found single-frame use at 17 percent and Small at 21 percent, also ranked third after the categories of no-frame and multi-frame use. Multi-frame (3 Frame) use was the fourth-highest category in this study, followed by the lowest category of dual-frame use at 10.5 percent.

The results of this study contrasted with those of previous studies on leadership frame use among college presidents, department chairs, and school district administrators (Bensimon, 1989; Bolman & Deal, 1991a; Bolman & Deal, 1991b) who found that leaders rarely used more than two frames and almost never used all four frames. Leaders using more than two frames were less than 25 percent in every sample (Bolman & Deal, 1991a).

This study heralds the highest multi-frame use of any previous study, with 43.7% of the sample adjudged to have MFIs of either 3 or 4 and with 32.6% of that category attributable to 4-frame users. In Small's (2002) study, 36.6 percent used more than two frames and Mosser (2000) found 31 percent to use more than two frames. Small (2002) hypothesized that the differences accounted for by the nursing studies and the Bensimon and Bolman and Deal studies might be attributable to variance in research methodology. Bensimon and Bolman and Deal used qualitative methods to define frame use, while the current study and those of Small (2002) and Mosser (2000) used quantitative methods. It is predictable, then, that the results of this current study might be likely to more closely

align with those using similar methodology, such as Mosser (2000) and Small (2002). Additionally, one must consider that the differences may be reflective of looking at different leaders at a different time, since the Bolman and Deal and Bensimon studies are considerably older than the nursing studies.

Research question three: Is there a relationship between the favored frame choice of nursing school administrators' (as measured by their nursing faculty members) and the perception of the administrator's leadership effectiveness?

Results of this study indicated a level of dependence between the favored frame choice of the nursing school administrators and the faculty members' perceptions of the administrators' leadership effectiveness. The favored frame choices of the human resource and symbolic frames had similar means for leadership effectiveness that were significantly higher than were the similar and lower means of the structural and political frames. Since leaders who favor the symbolic frame tend to inspire confidence amongst the followers through their symbolic meaning-making, the linkage from this frame choice to higher rankings of leadership effectiveness is not surprising and, in fact, should be predictable if Bolman and Deal's (1997) propositions about symbolic leaders are on target. Among other things, Bolman and Deal suggest that symbolic leaders instill a deep sense of vision and mission amongst followers, resulting in shared goals and dedication to the leader's vision for the organization. Characterized as a wise wizard, the symbolic leader leads passionately with sustaining spirit and soul, relying heavily on symbols to create or transform the organization (Bolman & Deal, 2006). As early as 1988, Quinn identified that leaders who move their focus from rationality and structure to symbolism and politics are likely to be transformed to excellence.

The higher mean rankings of leadership effectiveness were also associated with leaders who favored the human resource frame. Though the means of leadership effectiveness were slightly lower than that of those employing the symbolic frame, it was not statistically significantly different. Leaders who employ the human resource frame tend to have satisfied followers due, in part, to the leaders' positive qualities of being good listeners who are particularly attentive to the needs of their employees. Also, since individuals in the health care profession tend to have a natural proclivity toward the human resource frame, they may also tend to rank higher those others who they perceive to be similar.

The impact of gender on the lower evaluations of leadership effectiveness for political leaders must also be considered. Though gender was not a characteristic explored explicitly in this study, it is known that a high percentage of deans of nursing schools are female, as are the faculty. In fact, a national study of deans in the U. S. conducted by the Center for the Study of Academic Leadership (Wolverton & Gmelch, 2002) found that 41 percent of all deans were women, and that deans of nursing constituted almost half of all female deans. Characteristics of leaders navigating from the political framework may include aggression, ambition, and decisiveness. Though these behaviors are often portrayed as essential for leadership effectiveness in men, they may be decried when women exhibit them and result in lower effectiveness ratings (Robinson-Walker, 1999). This may explain some of the incongruence between this research and Bolman's and Deal's (1991b) research with higher education administrators who indicated that the symbolic and political frames were keys to effective leadership, while the structural and human resource frames were more suitable for management.

However, Bolman & Deal found no significance in leadership effectiveness ratings between genders in their higher education samples. They did note, however, that women rated themselves lower on the political frame even though their colleagues rated them higher. Since some evidence exists that women rating women are the most likely to suffer from lower scores (Robinson-Walker, 1999) when exhibiting attributes associated with the political frame, programs in nursing that are dominated by women faculty could be unique. Robinson-Walker (1999) describes the power clashes that can occur between women in the same professional group as “horizontal violence” (p. 58). She describes the loss of power experienced by women leaders as a result of hostility from other women within the organization who have an “underlying preference for symmetry when working with one another” (p. 88). This preference for symmetry could be actualized as lower ratings of effectiveness for women with preferences for the political frame of leadership.

Research question four: Is there a relationship between the favored frame choice of nursing school administrators’ (as measured by their nursing faculty members) and the nursing faculty members’ general job satisfaction or satisfaction with their supervisor?

Favored Frame Choice and General Job Satisfaction

The data analysis demonstrated no support for dependence between the favored frame choice of the nursing administrator and the faculty members’ ratings of their general job satisfaction. This may well be explained through Herzberg’s two-factor theory that proposed that job satisfaction results from intrinsic factors such as achievement, recognition, the work itself, responsibility and growth (King, 1970), as opposed to extrinsic factors, such as supervision. Willie and Stecklein (1982) reported the

opportunity to work with students was identified as the primary source of career satisfaction among those nurse faculty members teaching at the undergraduate level. Though a meta-analysis by Gormley (2003) noted that “dean or chairperson behavior strongly influences nursing faculty job satisfaction” (p. 177), she also concluded that the factors *most* predictive of faculty satisfaction in nursing tended to be intrinsic, rather than extrinsic. Thus, satisfaction with intrinsic factors could over-ride any negative perceptions of chairperson behavior when influencing the faculty’s general job satisfaction.

Favored Frame Choice and Satisfaction with the Supervisor

Unlike the independent relationship between favored frame choice and general job satisfaction, the research analysis concluded that the relationship between favored frame choice of the administrator and rankings of satisfaction with the supervisor could not be shown to be independent. Administrator-favored choices of both the symbolic and human resources frames were associated with mean higher satisfaction with supervisor scores than were the statistically lower means of the administrator-favored political and structural frames. The structural frame was shown to be statistically similar in mean scores to both the political and symbolic frames.

Faculty members are, not surprisingly, likely to rank a charismatic leader who inspires dedication, both to the leader and the organization, higher on a supervisory satisfaction ranking. These “wise wizards” (Bolman & Deal, 2006) create vision for their organization and promote institutional dedication.

The consummate human resource frame leaders manage their most precious organizational resource, their people, skillfully. They ensure a good fit between people

and the organization. They support and empower their followers. These characteristics also tend to make a leader beloved by the followers.

The political frame was not statistically ranked as highly with satisfaction with the supervisor as were the previously discussed frames. One explanatory factor for this is that politically-skilled leaders, when they are women (as is often the case in nursing education), are oftentimes not reviewed favorably for their leadership skills. The common political stereotypes of aggression, ambition, and decisiveness may be looked upon as indicative of leadership potential in men and yet, conversely, may label a woman leader as obnoxious and overbearing (Robinson-Walker, 1999) or even worse.

Likewise, structural leaders generally do not tend to endear themselves to their followers in a way that symbolic and human resource leaders can. The structurally-focused leaders' concerns with rationality, formal structures, logic, facts, data, and insistence on rules and policies certainly have merit; but taken alone (without consideration of the human and symbolic issues) can be off-putting and less than motivating. Bolman and Deal (1991b) have suggested that structural leaders are more likely to be characterized as good managers as opposed to good leaders and this may influence ratings of satisfaction with one's supervisor.

Research question five: Is there a relationship between the nursing school administrators' cognitive complexity (as measured by their multi-frame index score) and the nursing faculty members' general job satisfaction or satisfaction with their supervisor?

The analysis of data from this research determined that an administrators' ability to multi-frame, a proxy measure for cognitive complexity, was associated with higher faculty evaluations of both general job satisfaction and satisfaction with the supervisor.

MFI Scores and General Job Satisfaction

Dual and multi-frame users (both 3 and 4 frame) were found to have statistically higher means than No Frame Users for ratings of general job satisfaction of faculty members. Even though the favored or particular frame choice of the administrator was not shown to be significantly associated with faculty members' general job satisfaction (as addressed in Research Question 4), the ability to use multiple frames apparently is more significant to faculty members' overall perception of their satisfaction with their job. Apparently the particular frame that is perceived to be the favored one of the administrator (whatever it is) is not perceived to be limiting when the administrator is able to use multiple lenses while assessing the organization and strategizing priorities, problems and issues. In this instance, faculty members may not be concerned if administrators are most comfortable using the political frame, for example, if they are also able to consistently evaluate the impacts and issues reflected by the human resource, structural, and symbolic frames as well.

Knowing from previous research that general job satisfaction reflects individuals' general feelings toward their jobs and encompasses a number of different aspects of the job, it is hard to sort out exactly how the nursing school administrators' MFI scores interrelate with all the other variables. We do know that perceptions of general job satisfaction are, in part, related to expectations (Balzer et. al, 2000). Perhaps faculty members have the expectation that leaders in a complex field, such as medicine, should

be able to consistently and competently examine multiple perspectives of issues. Thus, when the administrator meets the expectations, greater job satisfaction of the faculty may result.

Current research also suggests, however, that job satisfaction for faculty is related more to intrinsic, rather than extrinsic, factors (Gormley, 2003; Marriner & Craigie, 1997; King, 1970). Is there then some relationship between the administrator's multi-framing capacity and the faculty members' appreciation of the importance of their own work? For example, it is possible that the multi-frame administrator successfully serves as a role model who influences and develops faculty's skills in multi-framing, thereby increasing their own feelings of self-efficacy and related sense of job satisfaction.

MFI Scores and Satisfaction with the Supervisor

Only the no frame use group had statistically significantly lower mean scores for satisfaction with the supervisor. Thus, the faculty members' assessment that the administrator had the ability to use at least one framework in a consistent manner was associated with relevance to faculty satisfaction with the supervisor. Perhaps this could be explained by the perception that if no consistent pattern of frame usage was clear, faculty members sensed a chaotic and unpredictable pattern of decision-making. Use of no particular consistent frame of reference could be perceived as inconsistent, erratic or biased. This perception would likely leave the faculty members with feelings of insecurity and lack of trust, possibly resulting in lower levels of satisfaction with the administrator.

Previous research has shown that in environments where the dean was perceived to be impersonal and aloof in dealings with faculty, declines in overall faculty job

satisfaction resulted (Donahue, 1986). Perhaps nursing school administrators perceived as unable to evaluate issues from any frame perspective are viewed as more impersonal. For example, when the administrator fails to value discourse with faculty, which could be the case when appreciation of multiple perspectives is diminished, personality characteristics of aloofness could reasonably (though perhaps not accurately) be attributed to the administrator by the faculty members.

In conclusion, if the administrator is a no-frame user, the chances are greater that faculty members are not likely to feel valued for their contributions to the organization due to inadequate human resource leadership skills. Development and communication of vision is hindered since this is a primary focus of the symbolic frame. Scarce resources may be lost due to deficiencies in the political frame, and roles and responsibilities may be unclear, due to a lack of structural leadership skills. In an educational setting like the aforementioned, it is certainly understandable that faculty could be unsatisfied with their supervisor.

Research question six: Is there a relationship between the perceived leadership effectiveness of nursing school administrators and the administrators' cognitive complexity (as measured by their multi-frame index score)?

Results of the data from this study demonstrated an association between higher mean leadership effectiveness ratings and MFI scores. Those nursing school administrators with MFI scores of 3 or 4 (multi-frame administrators) had statistically significantly higher mean leadership effectiveness ratings than did administrators with MFI scores of 0 or 1 (no frame and single-frame administrators). Higher MFI scores, for

purposes of this study, were representative of higher levels of cognitive complexity in the leader.

These findings are consistent with a number of previous studies from general organizational literature and from the field of education. Quinn (1988) was the first to demonstrate that progression through a four model framework was consistent with a transformation to leadership excellence. In 1992, Quinn, Spreitzer, and Hart demonstrated a relationship between behavioral complexity and the likelihood of success in making organizational improvement and Hart and Quinn (1993) found that the ability to play multiple and competing roles produced better firm performance. Managerial effectiveness was correlated with behavioral complexity in 1995 in a study by Denison, Hooijberg, and Quinn. In the educational setting, Birnbaum (1988) and Bensimon (1989) both concluded that university presidents who demonstrated cognitive complexity and were able to interpret institutional life through multiple perspectives were more likely to be rated highly for effectiveness by faculty.

Since cognitively complex leaders are able to view issues and problems from a variety of perspectives and are open to multiple and varying opinion (Bolman & Deal, 1997), faculty members are likely to feel that their input is valued when important organizational decisions are made. The ability to consider a wide range of possibilities allows the leader a greater repertoire of options for action in organizational planning and problem-solving. In fact, Morgan (1997) proposed that cognitively complex leaders were more capable of shaping the organization because they were able to actively read and embrace different points of view. Faculty who feel that they contributed to the direction taken by the organization are more likely to experience “buy-in” and rate their leader and

the leaders' direction for the organization positively. This type of situation could contribute to the synergy that Quinn (1991) believed was more likely to occur when complex leaders were in charge.

Conversely, one might presume that leaders ranked as using no frame consistently, or only consistently evaluating issues and problems from one frame, might appear inadequate in their capacity for dealing with complex organizational issues and problems. Likely, they are unable to infuse work with meaning for the faculty. Additionally, it is reasonable that faculty members might feel undervalued if they evaluated organizational issues from a different frame style than did the administrator, since the administrator would generally be unable to capably explore perspectives different from their own.

Implications for Research and Practice

Clinical and Educational Practice Implications

The increasingly complex and turbulent field of healthcare demands that leaders in the field – and those training future leaders – have high levels of cognitive complexity, as evidenced by their ability to assess situations from a multi-frame perspective. This study supports data from Bolman and Deal and others that suggest most leaders do not have the ability to multi-frame. Additionally, it confirms that many leaders are less proficient or comfortable in the use of the symbolic and political frames. Since all-four frame usage provides the greatest opportunity for organizational awareness and problem-solving, strategies to develop these proficiencies among nursing leaders in the academe are long overdue.

Researchers have suggested that graduate programs in nursing dedicate coursework to this type of leadership preparation (Mosser, 2000; Mosser & Walls, 2002; Small, 2002). This researcher proposes that leadership development begin earlier, at the baccalaureate level. Leadership, according to Bolman and Deal (1994) is “cultivated or nurtured primarily through experience” (p. 87). They go on to say that people need occasions early in their careers for some real challenges, giving them opportunities to try to lead. Nurses in the clinical arena have many such occasions. They simply need the training earlier in their education in order to exercise, and thus develop, more complex leadership skills.

Baccalaureate-prepared nurses today, though generally not immediately members of academe, are expected to perform in leadership roles in clinical settings. Developing skills of cognitive complexity at an earlier point would almost certainly enrich their clinical practice. Given this preparation, these nurses may experience greater leadership successes which could, in the long run, result in higher aspirations – including, possibly, an interest in nursing education. Since most leaders in nursing education today have their roots in the clinical practice area, they might arrive as members of the academy having already had the opportunity to develop their cognitive complexity through application in real-world clinical problem-solving.

Additionally, any coursework devoted to teaching principles and practices of multi-framing (whether at the undergraduate or graduate level) should stress the significance of the symbolic and political frames as precursors for full and effective leadership and provide opportunities for practice through case studies or complex problem analysis. Internships with mentors who have been identified as expert leaders in

the use of symbolic and political frames (as well as the more commonly developed skills in the human resource and structural frames) could provide rich and powerful learning experiences, especially if opportunities for self-reflection and feedback were built in.

Another implication for nursing programs would be in the area of selection of deans or department chairs. Structured interviews or case study scenarios could be developed that would assess multi-framing skills of potential deans, directors, or chairs during the interview process. Since faculty in this study reported higher general job satisfaction levels when their leaders had the capacity to multi-frame, increases in faculty retention might be realized when this criterion is used, among others, for hiring of nursing school administrators.

Additionally, since so many of the current faculty rate their nursing school administrators as being no-frame users, continuing education focusing on reframing skills for current nurse administrators could be helpful in developing our current nursing education leaders.

Implications for Further Research

The current research was based wholly on quantitative data. While informative in answering the research questions, richer information could be obtained if a qualitative component was added. For example, questions designed to elicit information regarding how faculty members determine frame usage of their nursing school administrators and to explore their perceptions of how multi-framing affects the quality of leadership could be enlightening.

Also, the current research used only one item to measure leadership effectiveness and made no attempt to explore differences between evaluations of managerial and

leadership effectiveness. Expanding the measures of leadership effectiveness, and contrasting it with managerial effectiveness, might provide further insight.

Elaborating on this study to directly explore relationships between perceptions of leadership effectiveness and satisfaction with the leader might also be worthwhile. In addition, research that was designed to study direction of relationships (e.g., Does use of multiple frames lead to higher perceptions of job satisfaction which leads to increases in measures of leadership effectiveness?) could further the body of knowledge.

Finally, a study could determine whether leadership style and ratings of leadership efficacy have an effect on nursing program outcomes such as NCLEX-RN pass rates and graduation rates. This data would be helpful for program assessment and evaluation and to target areas for improvement.

In conclusion, it is apparent from this study and countless others preceding it, that leadership does make a difference. In particular, leaders with high levels of cognitive complexity have the ability to multi-frame organizational issues and explore new possibilities that promote paradigm-level changes. Only this type of change will be sufficient to meet the challenges facing nursing education in today's turbulent healthcare arena.

Nursing school leaders must make two commitments to move nursing education forward. First, they need to develop their own multi-framing skills through professional development activity and programs. Enhancements in their ability to use the political and symbolic frames could transform many of nursing's good leaders of today to excellent leaders of tomorrow.

Secondly, they need to advocate for curricular change at the baccalaureate and masters level that would enhance students' abilities to develop multi-framing skills during their early nursing experiences. These potential nursing leaders of the future need the skills early so that they may refine and enhance them throughout their career, preparing them as more effective leaders in both nursing practice and academia. Nursing's future can be bright if nursing's leaders are willing to be bold, exploring new possibilities through the many lenses of the multi-frame practitioner.

REFERENCES

- American Association of Colleges of Nursing. (1999). *Distance technology in nursing education*. Retrieved March 21, 2007, from <http://www.aacn.nche.edu/Publications/positions/whitepaper.htm>
- American Association of Colleges of Nursing. (1999, April). *Faculty shortages intensify nation's nursing deficit*. Retrieved December 15, 2007, from <http://www.aacn.nche.edu/Publications/issues/IB499WB.htm>
- American Association of Colleges of Nursing. (2005, June). *Faculty shortages in baccalaureate and graduate nursing programs: Scope of the problem and strategies for expanding the supply*. Retrieved December 15, 2007, from <http://www.aacn.nche.edu/publications/whitepapers/facultyshortages.htm>
- Amey, M. J. (2006). Leadership in higher education. *Change*, 38(6), 55-58.
- Austin, M. J., Ahearn, F. L., & English, R. A. (1997). The professional school dean: Meeting the leadership challenges. *New Directions for Higher Education*, 98, 1-8.
- Balzer, W. K., Kihm, J. A., Smith, P. C., Irwin, J. L., Bachiochi, P. D., Robie, C., Sinar, E. F., & Parra, L. F. (2000). Users' manual for the Job Descriptive Index (JDI; 1997 version) and the Job in General scales. In J. M. Stanton and C. D. Crossley (Eds.), *Electronic resources for the JDI and JIG*. Bowling Green, OH: Bowling Green State University.
- Bass, B. M. (1981). *Stodgill's handbook of leadership: A survey of theory & research*. New York: Free Press.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M. (1990). *Bass & Stodgill's handbook of leadership: Theory, research & managerial applications*. (3rd ed.). New York: Free Press.
- Bass, B. M., & Avolio, B. J. (1990). Developing transformational leadership: 1992 and beyond. *Journal of European Industrial Training*, 14, 21-27.
- Bauder, L. (1982a). Balancing organizational demands with human needs: The ironic emphasis in schools of nursing. *Western Journal of Nursing Research*, 4, 153-165.

- Bauder, L. (1982b). Discontent and crisis at schools of nursing: The consequences of unmet human needs. *Western Journal of Nursing Research*, 4, 35-48.
- Beach, M. M. (1997). *Perceptions of job satisfaction of nursing faculty in Mississippi's nursing degree programs*. Unpublished doctoral dissertation, University of Mississippi, Lafayette.
- Bellack, J. P. (2004). One solution to the faculty shortage – Begin at the end. *Journal of Nursing Education*, 43(6), 243-244.
- Bennis, W. G. (1959). Leadership theory and administrative behaviour: The problem of authority. *Administrative Science Quarterly*, 4, 259-301.
- Bensimon, E. M. (1989). The meaning of good presidential leadership: A frame analysis. *Review of Higher Education*, 12, 107-123.
- Bensimon, E. M. (1991). The meaning of good presidential leadership: A frame analysis. In M. W. Peterson (Ed.), *ASHE reader series: Organization and governance in higher education* (4th ed., pp. 421-431). Needham Heights, MA: Simon & Schuster Custom Publishing.
- Bensimon, E. M., Neumann, A., & Birnbaum, R. (1989). *Making sense of administrative leadership: The "I" word in higher education* (ASHE-ERIC Higher Education Rep. No. 1). Washington, DC: The George Washington University, School of Education and Human Development.
- Bensimon, E. M., Neumann, A., & Birnbaum, R. (1991). In M. W. Peterson, E. E. Chaffee, & T. H. White (Eds.), *Organization and governance in higher education*. Needham Heights, MA: Simon & Schuster Custom Publishing.
- Berberet, J., & McMillin, L. (2002). The American professoriate in transition. *AGB Priorities*. Spring (18), 1-15. Washington, DC: Association of Governing Boards of Universities and Colleges.
- Berlin, L. E., & Sechrist, K. R. (2003). *Analysis of selected variables pertaining to full-time nurse faculty from the 1999 study of postsecondary faculty*. Unpublished manuscript.
- Berlin, L. E., Stennett, J., & Bednash, G. D. (2003). *2002-2003 enrollment and graduations in baccalaureate and graduate programs in nursing*. Washington, DC: American Association of Colleges of Nursing.
- Birnbaum, R. (1988). *How colleges work: The cybernetics of academic organization and leadership*. San Francisco: Jossey-Bass.

- Birnbaum, R. (1992). *How academic leadership works: Understanding success and failure in the college presidency*. San Francisco: Jossey-Bass.
- Bolman, L. G. (n.d.). *Research using Bolman and Deal's four-frame model*. Retrieved March 25, 2007, from http://www.leebolman.com/four_frame_research.htm
- Bolman, L. G. (n.d.). *Using leadership orientations for research*. Retrieved March 25, 2007, from <http://www.leebolman.com/orientations.htm>
- Bolman, L. G., & Deal T. E. (1984). *Modern approaches to understanding and managing organizations*. San Francisco: Jossey-Bass.
- Bolman, L. G., & Deal, T. E. (1990). *Leadership orientations* (Form No. 0-4). Retrieved May 7, 2007, from http://www.leebolman.com/peer_rating_form.htm
- Bolman, L. G., & Deal, T. E. (1991). *Images of leadership* (Occasional Paper No. 7). East Lansing, MI: The National Center for Educational Leadership. (ERIC Document Reproduction Service No. ED332345)
- Bolman, L. G., & Deal, T. E. (1991). Leadership and management effectiveness: A multi-frame, multi-sector analysis. *Human Resource Management*, 30(4), 509-534.
- Bolman, L. G., & Deal, T. E. (1992). Leading and managing: Effects of context, culture, and gender. *Educational Administration Quarterly*, 28(3), 314-329.
- Bolman, L. G., & Deal, T. E. (1997). *Reframing organizations* (2nd ed.). San Francisco: Jossey-Bass.
- Bolman, L. G., & Deal, T. E. (2001). *Leading with soul: An uncommon journey of spirit* (2nd ed.). San Francisco: Jossey-Bass.
- Bolman, L. G., & Deal, T. E. (2003). *Reframing organizations* (3rd ed.). San Francisco: Jossey-Bass.
- Bolman, L. G., & Deal, T. E. (2006). *The wizard and the warrior: Leading with passion and power*. San Francisco: Jossey-Bass.
- Brayfield, A. H., & Crockett, W. H. (1955). Employee attitudes and employee performance. *Psychological Bulletin*, 52, 396-424.
- Brendtro, M., & Hegge, M. (2000). Nursing faculty: One generation away from extinction? *Journal of Professional Nursing*, 16, 97-103.
- Brief, A. P., & Downey, H. K. (1977). Cognitive and organizational structure: A conceptual analysis of implicit organizing theories. *Human Relations*, 36(12), 1065-1090.

- Bright, D., & Richards, M. (2001). *The academic deanship: Individual careers and institutional roles*. San Francisco: Jossey-Bass.
- Brookman, J. S. (1989). *Job satisfaction among nurse educators*. Unpublished doctoral dissertation, University of Alabama, Birmingham.
- Bryman, A. (1986). *Leadership and organizations*. Boston: Routledge & Kegan Paul.
- Buckley, M. R., Carraher, S. M., & Cote, J. A. (1992). Measurement issues concerning the use of inventories of job-satisfaction. *Educational and Psychological Measurement, 52*, 529-543.
- Buller, J. L. (2007). *The essential academic dean: A practical guide to college leadership*. San Francisco: Jossey-Bass.
- Burns, J. M. (1978). *Leadership*. New York: Harper.
- Cantu, D. A. (1997). *The leadership frames of academic deans randomly selected and nominated as exceptionally effective at public colleges and universities*. Unpublished doctoral dissertation, Arkansas State University, Jonesboro.
- Christensen, C. (2004). Travel tips for a journey into academic administration. *Journal of Nursing Education, 43*(11), 512-516.
- Christian, P. C. (1986). The impact of expectations on faculty job satisfaction. *Journal of Nursing Education, 25*, 378-383.
- Corcoran, R. D. (2006, May 8). National league for nursing member update. *Biweekly Publication of the National League for Nursing, 8*(9). Retrieved May 10, 2006 from <http://www.nln.org/newsletter/aug142006.htm>
- Corcoran, R. D. (2006, August 14). National league for nursing member update. *Biweekly Publication of the National League for Nursing, 8*(16). Retrieved May 10, 2006 from <http://www.nln.org/newsletter/may82006.htm>
- Covey, S. R. (1989). *Seven habits of highly effective people* (p. 42). New York: Rockefeller Center.
- Cowen, E. W. (1991). *Perceptions of part-time nursing faculty and administrators related to job satisfaction*. Unpublished doctoral dissertation, Ball State University, Muncie, IN.
- Cronshaw, S. F. (1987). Effects of categorization, attribution, and encoding processes on leadership perspectives. *Journal of Applied Psychology, 72*(1) 91-106.

- Del Favero, M. (2006). An examination of the relationship between academic discipline and cognitive complexity in academic deans' administrative behavior. *Research in Higher Education, 47*(3), 281-315.
- Denison, D., Hooijberg, R., & Quinn, R. (1995). Paradox and performance: Toward a theory of behavioral complexity in managerial leadership. *Organization Science, 6*(5), 524-540.
- DeYoung, S., & Bliss, J. (1995). Nursing faculty-An endangered species? *Journal of Professional Nursing, 11*(2), 84-88.
- Dick, M. J. (1986). Burnout in nurse faculty: Relationships with management style, collegial support, and workload in collegiate programs. *Journal of Professional Nursing, 2*, 252-260.
- Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method* (2nd ed., pp. 4, 14-21, 372-412). New York: John Wiley & Sons, Inc.
- Disch, J., Edwardson, S., & Adwan, J. (2004). Nursing faculty satisfaction with individual, institutional, and leadership factors. *Journal of Professional Nursing, 20*(5), 323-331.
- Donohue, J. D. (1986, November/December). Faculty perceptions of organizational climate and expressed job satisfaction in selected baccalaureate schools of nursing. *Journal of Professional Nursing, 373-379*.
- Donahue, M. P. (1985). *Nursing, the finest art: An illustrated history*. St. Louis, MO: The C. V. Mosby Company.
- Duke, D. L. (1998). The normative context of organizational leadership. *Educational Administration Quarterly, 34*(2), 165-195.
- Dunford, R. W., & Palmer, I. C. (1995). Claims about frames: Practitioners' assessment of the utility of reframing. *Journal of Management Education, 19*(1), 96-105.
- Fagin, C. M. (1997). The leadership role of a dean. In M. J. Austin, F. L. Ahearn, & R. A. English (Eds.), *The professional dean: Meeting the leadership challenges: Vol. 25* (pp. 95-99). San Francisco: Jossey-Bass.
- Fain, J. A. (1987). Perceived role conflict, role ambiguity, and job satisfaction among nurse educators. *Journal of Nursing Education, 26*(6).
- Fang, D., Htut, A. M., & Bednash, G. D. (2008). *2007-2008 salaries of instructional and administrative nursing faculty in baccalaureate and graduate programs in nursing*. Washington, DC: American Association of Colleges of Nursing.

- Fang, D., Htut, A., & Bednash, G. D. (2008). *2007-2008 enrollment and graduations in baccalaureate and graduate programs in nursing*. Washington, DC: American Association of Colleges of Nursing.
- Fang, D., Wilsey Wisniewski, S., & Bednash, G. D. (2007). *2006-2007 Salaries of instructional and administrative nursing faculty in baccalaureate and graduate programs in nursing*. Washington, DC: American Association of Colleges of Nursing.
- Field, A. (2005). *Discovering statistics using SPSS*. London: SAGE Publications Ltd.
- Fiedler, F., & Chemers, M. (1974). *Leadership and effective management*. Glenview, IL: Scott Foresman.
- Fieldler, K. (1982). Casual schemata: Review and criticism of research on a popular construct. *Journal of Personality and Social Psychology*, 42, 1001-1013.
- Fiske, S. T., & Dyer, L. M. (1985). Structure and development of social schemata: Evidence from positive and negative transfer effects. *Journal of Personality and Social Psychology*, 48(4), 839-852.
- Fong, C. M. (1993). A longitudinal study of the relationships between overload, social support, and burnout among nursing educators. *Journal of Nursing Education*, 32(1), 24-29.
- Fox, M. (2007). *Start from ground up to fix health care: CDC head*. Retrieved July 16, 2007, <http://www.reuters.com/article/health-SP/idUSN148524820070716>
- Frensch, P. A., & Sternberg, R. J. (1991). Skill-related differences in chess playing. In R. J. Sternberg & P. A. Frensch (Eds.), *Complex problem solving*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Goffman, E. (1974). *Frame analysis*. Cambridge, MA: Harvard University Press.
- Goffman, E. (1986). *Frame analysis: An essay on the organization of experience*. Boston: Northeastern University Press.
- Gormley, D. K. (2003). Factors affecting job satisfaction in nursing faculty: A meta-analysis. *Journal of Nursing Education*, 42(4), 174-178.
- Grandjean, B. D., Aiken, L. H., & Bonjean, C. M. (1976). Professional autonomy and the work satisfaction of nurse educators. *Nursing Research*, 25, 216-221.
- Grandjean, B. D., Bonjean, C. M., & Aiken, L. H. (1982). The effect of centralized decision-making on work satisfaction among nurse educators. *Research in Nursing and Health*, 5, 29-36.

- Green, A., & Ridenour, N. (2004). Shaping a career trajectory in academic administration: Leadership development for the deanship. *Journal of Nursing Education, 43*(11), 489-495.
- Gregory, K. L. (1983). Native view paradigms: Multiple cultures and cultural conflict in organizations. *Administrative Science Quarterly, 28*, 359-376.
- Gruneberg, M. (1979). *Understanding job satisfaction*. New York: Wiley & Sons.
- Hart, S., & Quinn, R. E. (1992). Behavioral complexity and the effectiveness of managerial leaders. In R. E. Quinn, S. R. Faerman, M. P. Thompson, & M. R. McGrath, *Becoming a master manager: A competency framework* (3rd ed., pp. 14-15). New York: John Wiley & Sons, Inc.
- Hastie, R. (1981). Schematic principles in human memory. In E.T. Higgins, C.P. Herman, & M. Zanna (Eds.), *Social cognition: The ontario symposium: Vol. 1*. Hillsdale, NJ: Erlbaum.
- Hausler, S. (1988). Faculty perceptions of the organizational climate in selected top ranked schools of nursing. *Journal of Professional Nursing, 4*, 274-278.
- Hecht, I. W. D. (2006). Becoming a department chair: To be or not to be? *Effective Practices for Academic Leaders, 1*(3).
- Holland, C. B. (1992). *The influence of job satisfaction and organizational commitment on intention to leave of nurse educators*. Unpublished doctoral dissertation, Louisiana State University, Baton Rouge.
- Hooijberg, R., & Quinn R. E. (1992). Behavioral complexity and the effectiveness of managerial leaders. In R. E. Quinn, S. R. Faerman, M. P. Thompson, & M. R. McGrath, *Becoming a master manager: A competency framework* (3rd ed., pp. 14-15). New York: John Wiley & Sons, Inc.
- Hoy, W. K., & Miskel, C. G. (1982). *Educational administration: Theory, research, and practice* (2nd ed.). New York: Random House.
- Johnsrud, L. K., & Edwards, R. L. (2001, November). *Mediating the intent to leave: The affective responses of midlevel administrators to their worklives*. Symposium conducted at the ASHE Annual Meeting, Richmond, VA.
- Johnsrud, L. K., Heck, R. H., & Rosser, V. J. (2000, January/February). Morale matters: Midlevel administrators and their intent to leave. *Journal of Higher Education, 71*(1).
- Kenner, C., Pressler, J. L., & Loving, G. (2007). New age literacy: Expectations for deans. *Nurse Educator, 32*(3), 97-99.

- Kennerly, S. M. (1989). Leadership behavior and organizational characteristics: Implications for faculty satisfaction. *Journal of Nursing Education*, 28, 198-202.
- Kerlinger, F. N. (1986). *Foundations of behavioral research* (34th ed.). New York: CBS College.
- Ketefian, S. (1991). Doctoral preparation for faculty roles: Expectations and realities. *Journal of Professional Nursing*, 7(2), 105-111.
- King, N. (1970). Clarification and evaluation of the two-factor theory of job satisfaction. *Psychol Bull*, 74(18).
- Kinicki, A. J., McKee-Ryan, F. M., Schriesheim, C. A., & Carson, K. P. (2002). Assessing the construct validity of the job descriptive index: A review and meta-analysis. *Journal of Applied Psychology*, 87(1), 14-32.
- Konstan, J. A., Rosser, B. R. S., Ross, M. W., Stanton, J., & Edwards, W. M. The story of subject naught: A cautionary but optimistic tale of internet survey research. *Journal of Computer-Mediated Communication*, 10(2), Article 11. Retrieved November 21, 2007 from <http://jcmc.indiana.edu/vol10/issue2/konstan.html>
- Korman, A. K., & Tanofsky, R. (1975). Statistical problems of contingency models in organizational behavior. *Academy of Management Journal*, 18, 393-397.
- Kuennen, J. K. (2002). *Job satisfaction among nurse educators of private colleges and universities*. Doctoral dissertation, University of Northern Iowa, Cedar Falls.
- Kuhn, T. S. (1970). *The structure of scientific revolutions* (2nd ed.). Chicago: University of Chicago Press.
- Lee, T. W., & Mowday, R. T. (1987). Voluntarily leaving an organization: An empirical investigation of Steers and Mowday's model of turnover. *Academy of Management Journal*, 30(4), 721-743.
- Lesgold, A., & Lajoie, S. (1991). Complex problem solving in electronics. In R. J. Sternberg & P. A. Frensch (Eds.), *Complex problem solving*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Lindeman, C. A. (2000). The future of nursing education. *Journal of Nursing Education*, 39(1), 5-12.
- Lord, R. G., & Foti, R. J. (1986). Schema theories, information processing, and organizational behavior. In H. P. Sims, Jr., D. A. Gioia, & Associates (Eds.), *The thinking organization*. San Francisco: Jossey-Bass.

- MacDonald, G. J. (2007). *Nursing schools short on teachers*. Retrieved February 6, 2007, from the USA Today Web site: http://www.usatoday.com/printedition/life/20061004/bl_cover04_nursingschools.art.htm
- Mansen, T. J. (1993). Role-taking abilities of nursing education administrators and their perceived leadership effectiveness. *Journal of Professional Nursing* 9(6).
- Marriner, A., & Craigie, D. (1977). Job satisfaction and mobility of nursing educators in baccalaureate and higher degree programs in the west. *Nursing Research*, 26, 349-360.
- McCloskey, J. (1974). Influence of rewards and incentives on staff nurse turnover rate. *Nursing Research*, 23, 238-247.
- McInnis, L. A. (2005). *Nursing faculty satisfaction and course delivery methodology*. Unpublished doctoral dissertation, Touro University International, Cypress, CA.
- McKeachie, W. J. (1972). Memo to new department chairmen. In J. Brann & T. A. Emmet (Eds.), *The academic department or division chairman: A complex role*. Detroit, MI: Balamp Publishing.
- McNeal, G. J. (2003). African American nurse faculty satisfaction and scholarly productivity at predominantly white and historically black colleges and universities. *ABNF Journal*, 14(1), 4-12.
- Mezirow, J. (1994). Understanding transformation theory. *Adult Education Quarterly*, 44(4), 222-223.
- Milone-Nuzzo, P., & Lancaster, J. (2004). Looking through the right end of the telescope: Creating a focused vision for a school of nursing. *Journal of Nursing Education*, 43(11), 506-511.
- Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, 62, 237-240.
- Moody, N. B. (1996). Nurse faculty job satisfaction: A national survey. *Journal of Professional Nursing*, 12(5), 278-288.
- Morgan, G. (1997). *Images of organization* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Mosser, N. R. (2000). *A study of the relationship between the perceived leadership style of nursing chairpersons and the organizational climate in baccalaureate nursing programs*. Unpublished doctoral dissertation, West Virginia University, Morgantown.

- Mosser, N. R., & Walls, R. T. (2002). Leadership frames of nursing chairpersons and the organizational climate in baccalaureate nursing programs. *Southern Online Journal of Nursing Research*, 2(3), 1-11.
- National Center for Education Statistics. (2002, June). *1999 National study of postsecondary faculty* (NSOPF Publication No. 99). Washington, DC: U.S. Department of Education. Retrieved December 1, 2007, from <http://nces.ed.gov/pubs2002/2002154.pdf>
- National League for Nursing. (2005, December 9). *Despite encouraging trends suggested by the NLN's comprehensive survey of all nursing programs, large number of qualified applications continue to be turned down*. Retrieved March 18, 2006, from <http://www.nln.org/newsreleases/nedsdec05.pdf>
- National League for Nursing. (2006, August 14). *NLN member update* (Issue No. 16). Retrieved December 1, 2007, from <http://www.nln.org/newsletter/aug142006.htm>
- National League for Nursing Position Statements. (2003, August 22). *Innovation in nursing education: A call for reform*. Retrieved December 1, 2007, from <http://www.nln.org/aboutnln/PositionStatements/index.htm>
- National League for Nursing Position Statements. (2005, May 9). *Transforming nursing education*. Retrieved December 1, 2007, from <http://www.nln.org/aboutnln/PositionStatements/index.htm>
- National League for Nursing Task Group on Recruitment and Retention of Nurse Educators. (2005). *A national study of faculty role satisfaction 2003*. New York: National League for Nursing.
- Neisser, U. (1976). *Cognition and reality*. New York: W.H. Freeman.
- Oermann, M. H. (1998). Work-related stress of clinical nursing faculty. *Journal of Nursing Education*, 37(7), 302-304.
- O'Mara, A. M. (1991). The relationship between nursing faculty productivity and chairperson leadership style. *Dissertation Abstracts International*, 53, 05A. (UMI No. 9222747)
- O'Neil, E. H. (1997). Trends to watch in health professions practice and education. *Front and Center*, 4(7).
- Ostroff, C. (1992). The relationship between satisfaction, attitudes, and performance: An organizational level analysis. *Journal of Applied Psychology*, 77, 963-974.
- Pew Health Professions Commission. (1998, December). *Recreating health professional practice for a new century* (Report No. 4). San Francisco: Author.

- Polit, D. F., & Hungler, B. P. (1999). *Nursing research: Principles and methods* (6th ed.). Philadelphia: J. B. Lippincott Company.
- Pollock, S. (1986). Top ranked schools of nursing: The role of the dean. *Journal of Nursing Education, 25*, 314-318.
- Potempa, K. (2001). Where winds the road of distance education in nursing? *Journal of Nursing Education, 40*(7), 291-292.
- Pressler, J. L., & Kenner, C. (2007). Closet skeletons that accompany all deanships. *Nurse Educator, 32*(2), 55-57.
- Quinn, R. E. (1988). *Beyond rational management*. San Francisco: Jossey-Bass.
- Quinn, R. E. (1991). *Beyond rational management: Mastering the paradoxes and competing demands of high performance*. San Francisco: Jossey-Bass.
- Quinn, R. E., Faerman, S. R., Thompson, M. P., & McGrath, M. R. (2003). *Becoming a master manager: A competency framework* (3rd ed.). New York: John Wiley & Sons, Inc.
- Quinn, R. E., Spreitzer, G. M., & Hart, S. (1992). Behavioral complexity and the effectiveness of managerial leaders. In R. E. Quinn, S. R. Faerman, M. P. Thompson, & M. R. McGrath, *Becoming a master manager: A competency framework* (3rd ed., pp. 14-15). New York: John Wiley & Sons, Inc.
- Redman, M. (1991). *A comparative study of the leadership orientation frames of administrators in private Japanese and American institutions of higher education*. Unpublished doctoral dissertation, University of La Verne, La Verne, CA.
- Reynolds, E. M. H. (1997). *The relationship between job satisfaction and collegial support to retention of nurse educators in baccalaureate and higher degree nursing programs in Virginia*. Unpublished doctoral dissertation, Old Dominion University, Norfolk, Virginia.
- Robinson-Walker, C. (1999). *Leadership in health care: The journey to authenticity and power*. San Francisco: Jossey-Bass.
- Rosser, V. J. (2004). Faculty members' intentions to leave: A national study on their worklife and satisfaction. *Research on Higher Education, 45*(3), 285-309.
- Rost, J. E. (1991). *Leadership for the 21st century*. New York: Praeger Publishers.
- Ruben, B. D. (2006). Departmental effectiveness: What is it? Why is it important? How can it be achieved? *Effective Practices for Academic Leader, 1*, 12.

- Ryan, M. E., & Irvine, P. (1996). Academic administrators in nursing: A role analysis. *Journal of Nursing Science, 1*(5/6), 137-147.
- Sarmiento, T. P., Laschinger, H. K. S., & Iwasiw, C. (2004). Nurse educators' workplace empowerment, burnout, and job satisfaction: Testing Kanter's theory. *Journal of Advanced Nursing 46*(2), 134-143.
- Sassnet, B., & Ross, T. (2007). Leadership frames and perceptions of effectiveness among health information management program directors. *Perspectives in Health Information Management, 4*(8), 1-11.
- Schein, E. H. (1992). *Organizational culture and leadership* (2nd ed.). San Francisco: Jossey-Bass.
- Schneider, B., & Snyder, R. (1974). *Some relationships among and between measures of employee perceptions and other indices of organization effectiveness* (Research Rep. No. 5). Baltimore: University of Maryland, Department of Psychology.
- Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Currency Doubleday.
- Shieh, H. L., Mills, M. E., & Waltz, C. F. (2001). Academic leadership style predictors for nursing faculty job satisfaction in Taiwan. *Journal of Nursing Education, 40*(5).
- Sims, H.P., Gioia, D.A., & Associates. (1986). *The thinking organization*. San Francisco: Jossey-Bass.
- Small, T. T. (2002). *A study of the relationship between the perceived leadership style of nursing chairpersons and the organizational effectiveness of baccalaureate nursing programs*. Unpublished doctoral dissertation, West Virginia University, Morgantown.
- Smith, P. C., Kendall, L. M., & Hulin, C. L. (1969). *The measurement of satisfaction in work and retirement*. Chicago: Rand McNally.
- Snarr, C. E., & Krochalk, P. C. (1996). Job satisfaction and organizational characteristics: result of a nationwide study of baccalaureate nursing faculty in the United States. *Journal of Advanced Nursing, 24*, 405-412.
- Stanton, J. M., Sinar, E. F., Balzar, W. K., Julian, A. L., Thoresen, P., Aziz, S., et al. (2001). Development of a compact measure of job satisfaction: The abridged job descriptive index. *Educational and Psychological Measurement, 61*(6), 1104-1122.

- Starck, P. L., Warner, A., & Kotarba, J. (1999). 21st Century leadership in nursing education: The need for trifocals. *Journal of Professional Nursing, 15*(5), 265-269.
- Stodgill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. *Journal of Psychology, 25*, 35-71.
- Stodgill, R. M. (1974). *Handbook of leadership: A survey of the literature*. New York: Free Press.
- Taylor, S., & Crocker, J. (1981). Schematic bases of social information processing. In E. T. Higgins, C. P. Herman, & M. Zanna (Eds.), *Social cognition: The Ontario Symposium: Vol. 1*. Hillsdale, NJ: Erlbaum.
- Thompson, M. D. (2000). Gender, leadership orientation, and effectiveness: Testing the theoretical models of Bolman & Deal and Quinn. *Sex Roles, 42*(11/12), 969-992.
- Tichey, N. M., & Devanna, M. A. (1986). *The transformational leader*. New York: John Wiley & Sons.
- Trossman, S. (2002). Who will be there to teach? Shortage of nursing faculty a growing problem. *The American Nurse, 34*(1), 22-23.
- Tucker, A. (1984). *Chairing the academic department: Leadership among peers* (2nd ed.). New York: Macmillan.
- Van der Veer, G. (1991). *Cognitive complexity and the career achievement of higher education administration*. Unpublished doctoral dissertation, University of Maryland, College Park.
- Voss, J. F., Wolfe, C. R., Lawrence, J. A., & Engle, R. A. (1991). From Representation to decision: An analysis of problem solving in international relations. In R. J. Sternberg & P. A. Frensch (Eds.), *Complex problem solving*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Weick, K. E. (1979). *The social psychology of organizing* (2nd ed.). Reading, MA: Addison-Wesley.
- Weick, K. E., & Bougon, M.G. (1986). Organizations as cognitive maps. In H. P. Sims, Jr., D. A. Gioia, & Associates (Eds.), *The thinking organization*. San Francisco: Jossey-Bass.
- Wieck, K. L. (2000). A vision of nursing: The future revisited. *Nursing Outlook, 48*(1), 7-8.

- Wieck, K. L. (2003, April). Faculty for the millennium: Changes needed to attract the emerging workforce into nursing. *Journal of Nursing Education*, 42(4), 151-158.
- Willie, R., & Stecklein, J. E. (1982). A three decade comparison of college faculty characteristics, satisfactions, activities, and attitudes. *Research in Higher Education*, 16, 81-93.
- Wolverton, M., & Gmelch, W. H. (2002). *College deans: Leading from within*. Westport, CT: Oryx Press.
- Wright, K. B. (2005). Researching internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring survey packages, and web survey services. *Journal of Computer-Mediated Communications*, 10(3), Article 11. Retrieved November 21, 2007, from <http://jcmc.Indiana.edu/vol10/issue3/wright.html>
- Yukl, G. (1998). *Leadership in organizations* (4th ed.). Upper Saddle River, NJ: Prentice

APPENDICES

APPENDIX A: LEADERSHIP ORIENTATIONS (OTHER)

© 1990, Lee G. Bolman and Terrence E. Deal, all rights reserved

This questionnaire asks you to describe the person that you are rating in terms of leadership and management style.

I. Leader Behaviors

You are asked to indicate how often each item is true of the person that you are rating.

Please use the following scale in answering each item.

1	2	3	4	5
Never		Sometimes		Always
	Occasionally		Often	

So, you would answer '1' for an item that is never true of the person you are describing, '2' for one that is occasionally true, '3' for one that is sometimes true, and so on.

Be discriminating! The results will be more helpful to the rate if you think about each item and distinguish the things that the rate really does all of the time from the things that s/he does seldom or never.

1. _____ *Thinks very clearly and logically.*
2. _____ *Shows high levels of support and concern for others.*
3. _____ *Shows exceptional ability to mobilize people and resources to get things done.*
4. _____ *Inspires others to do their best.*

5. _____ *Strongly emphasizes careful planning and clear time lines.*
6. _____ *Builds trust through open and collaborative relationships.*
7. _____ *Is a very skillful and shrewd negotiator.*
8. _____ *Is highly charismatic.*
9. _____ *Approaches problems through logical analysis and careful thinking.*
10. _____ *Shows high sensitivity and concern for others' needs and feelings.*
11. _____ *Is unusually persuasive and influential.*
12. _____ *Is an inspiration to others.*
13. _____ *Develops and implements clear, logical policies and procedures.*
14. _____ *Fosters high levels of participation and involvement in decisions.*
15. _____ *Anticipates and deals adroitly with organizational conflict.*
16. _____ *Is highly imaginative and creative.*
17. _____ *Approaches problems with facts and logic.*
18. _____ *Is consistently helpful and responsive to others.*
19. _____ *Is very effective in getting support from people with influence and power.*
20. _____ *Communicates a strong and challenging vision and sense of mission.*
21. _____ *Sets specific, measurable goals and holds people accountable for results.*
22. _____ *Listens well and is unusually receptive to other people's ideas and input.*
23. _____ *Is politically very sensitive and skillful.*
24. _____ *Sees beyond current realities to create exciting new opportunities.*
25. _____ *Has extraordinary attention to detail.*
26. _____ *Gives personal recognition for work well done.*
27. _____ *Develops alliances to build a strong base of support.*
28. _____ *Generates loyalty and enthusiasm.*
29. _____ *Strongly believes in clear structure and a chain of command.*
30. _____ *Is a highly participative manager.*

31. _____ *Succeeds in the face of conflict and opposition.*
32. _____ *Serves as an influential model of organizational aspirations and values.*

II. Leadership Style

This section asks you to describe the leadership style of the person that you are rating. For each item, give the number “4” to the phrase that best describes this person, “3” to the item that is next best, and on down to “1” for the item that is least like this person.

1. The individual’s strongest skills are:

- _____ a. *Analytic skills*
- _____ b. *Interpersonal skills*
- _____ c. *Political skills*
- _____ d. *Ability to excite and motivate*

2. The best way to describe this person is:

- _____ a. *Technical expert*
- _____ b. *Good listener*
- _____ c. *Skilled negotiator*
- _____ d. *Inspirational leader*

3. What this individual does best is:

- _____ a. *Make good decisions*
- _____ b. *Coach and develop people*
- _____ c. *Build strong alliances and a power base*
- _____ d. *Energize and inspire others*

4. What people are most likely to notice about this person is:

- _____ a. *Attention to detail*
- _____ b. *Concern for people*

_____ c. *Ability to succeed, in the face of conflict and opposition*

_____ d. *Charisma*

5. This individual's most important leadership trait is:

_____ a. *Clear, logical thinking*

_____ b. *Caring and support for others*

_____ c. *Toughness and aggressiveness*

_____ d. *Imagination and creativity*

6. This person is best described as:

_____ a. *An analyst*

_____ b. *A humanist*

_____ c. *A politician*

_____ d. *A visionary*

III. Overall rating

Compared to other individuals that you have known with comparable levels of experience and responsibility, how would you rate this person on:

1. Overall effectiveness as a **manager**.

1	2	3	4	5
Bottom 20%		Middle 20%		Top 20%

2. Overall effectiveness as a **leader**.

1	2	3	4	4
Bottom 20%		Middle 20%		Top 20%

IV. Background Information

The following information will not be provided to the ratee, but will contribute to our efforts to understand how perceptions of leadership styles are influenced by the relationship between rater and ratee.

1. Are you: _____ Male _____ Female

2. Which of the following best describes your work with the ratee:
_____ The ratee is at a higher level in the organization than I am.
_____ The ratee and I are at about the same organizational level.
_____ I am at a higher level in the organization than the ratee.
_____ I am a client or customer of the ratee's organization.
_____ Other. Please specify _____

APPENDIX B: PERMISSION TO USE LOI (OTHER) INSTRUMENT

Higgins, Brenda

Subject: FW: Research with LOI

From: Lee Bolman [mailto:bolmanl@umkc.edu]

Sent: Tuesday, June 17, 2008 10:28 AM

To: Higgins, Brenda

Subject: RE: Research with LOI

Dear Ms. Higgins:

I am delighted to offer you permission to use the Leadership Orientations Instrument in your dissertation, based on your commitment to provide us a copy of your results.

Best wishes in your research.

Lee G. Bolman
Professor and Marion Bloch/Missouri Chair in Leadership
Bloch School of Business and Public Administration
University of Missouri-Kansas City

APPENDIX C: COPYRIGHT RESTRICTIONS ON PUBLICATION OF JDI/JIG

From: Higgins, Brenda [mailto:bhiggins@truman.edu]
Sent: Sunday, July 27, 2008 12:35 PM
To: JDI Research Assistance
Subject: RE: aJDI

Hi Maya,

I just successfully defended my dissertation that used the Abridged JDI/JIG. May I include a copy of the instrument in the appendix of my dissertation? If so, I need a permission statement (e-mail is fine) and if not, I also need that in writing. It is certainly desirable to be able to include it in the dissertation. As soon as I have my final dissertation submitted, I'll start to get together the requested material for your files.

Thanks so much,

Brenda

From: JDI Research Assistance [mailto:jdi_ra@bgsu.edu]
Sent: Monday, July 28, 2008 10:24 AM
To: Higgins, Brenda
Subject: RE: aJDI

Hi Brenda,

Because of copyright purposes, you can only use the full measure in your appendix if you do not plan on publishing this. If the dissertation is published in Dissertations International or written up for publication, the full measure cannot be in the appendix.

Let me know what you want to do.

Thanks!

Mike

Michael Sliter
JDI Research Assistant
Department of Psychology
Bowling Green State University
Voice: 419.372.8247
Fax: 419.372.6013

APPENDIX D: USE OF JDI/JIG

JDI Electronic Resources
Page 2

Copyright Usage Note for the Electronic Version:

Your purchase of the electronic version of the Job Descriptive Index (JDI) user's manual entitles you to personal usage of the contents of this document. You may make one paper copy of this manual. You may publish quotations of up to 250 words from the manual without further permission. You may not publish the item content of any of the JDI scales, any of the tables contained in this document, or any of the figures contained in this document without permission from the copyright holder, Bowling Green State University. You may not reproduce or distribute either this electronic file or any paper copies of this document for any purpose. Use of the JDI items for research must be licensed from the Department of Psychology, Bowling Green State University.

Copyright Note from the Paper Version:

The original copyright of the Job Descriptive Index by Rand McNally has been transferred to the original authors and donated by them to Bowling Green State University. The 1985 and 1997 revisions as well as the Job in General are also copyrighted by the University. Copies of the Job Descriptive Index and the Job in General Scale (or permission to reproduce them) and hand scoring keys may be obtained by writing or telephoning the Department of Psychology, Bowling Green State University, Bowling Green, OH 43403 (419-372-2301).

A complete listing of available scales and related resources can be found in Appendix IV. Materials listed in this appendix can be obtained by contacting the Department of Psychology at Bowling Green State University.

APPENDIX E: SELECTED PORTION OF INTERNET SURVEY INSTRUMENT

Ultimate Survey

Page 1 of 1

Survey Preview: Test

Below is a preview of your survey which was generated using the current question set and style. When you are finished previewing, please close this browser window to return to the administration console.

Page 1 of 1 [View All Pages](#)



This survey is a part of a doctoral research project entitled, "An Evaluation of the Relationship of Nursing School Administrators' Leadership Frame Orientation to Faculty Perceptions of Job Satisfaction and Leadership Effectiveness."

It is hoped that it may provide societal benefits in that the information obtained will be helpful in educating nursing administrators, and in resolving the nursing faculty shortage issues. Risks to completing the study are minimal and generally involve no more than that encountered in everyday life situations.

CONSENT: Your participation is voluntary and you have the right to withdraw from the study at any time. Confidentiality will be maintained by reporting data in the aggregate only. No identifying information of faculty participants, program administrators, or educational institutions will be reported. Program administrators will not have access to data provided by members of their institution. Data collected will be stored on the primary investigator's private, password-protected computer in a locked office. Hard copies of data will be maintained in a locked file. All data collected will be stored for 3 years from the date of completion of the project, then destroyed by shredding.

For any questions regarding this survey, you may contact Brenda Higgins, Primary Investigator at 660-785-4562 or email bhiggins@truman.edu; or the faculty advisor, Dr. Joe Donaldson, at DonaldsonJ@missouri.edu; or for additional information regarding human subject participation and research, contact the University of Missouri-Columbia campus IRB at 573-882-9585.

* 1. I agree to the elements of consent listed above

I agree



Survey Preview: Test		
Below is a preview of your survey which was generated using the current question set and style. When you are finished previewing, please close this browser window to return to the administration console.		
Page 2 of 11		View All Pages

The study takes approximately 20 minutes to complete. Please read each question carefully and answer to the best of your ability. You may skip any question that you prefer to not answer.

LEADERSHIP ORIENTATIONS (OTHER)

© 1990, Lee G. Bolman and Terrence E. Deal, all rights reserved

INSTRUCTIONS:

This questionnaire asks you to describe the person that you are rating in terms of leadership and management style.

For this entire survey, please evaluate these items regarding the HIGHEST RANKING NURSING OFFICIAL in your educational organization. In most schools of nursing, this will be the Dean of the School of Nursing. However, in some schools, nursing is a department and the highest nursing administrator is the Department or Program Chair. If your school has both a Dean and a Department or Program Chair, please evaluate the highest position as long as it is held by a nurse.

I. Leader Behaviors

You are asked to indicate how often each item is true of the person that you are rating.

2. Thinks very clearly and logically.

Never Occasionally Sometimes Often Always

3. Shows high levels of support and concern for others.

Never Occasionally Sometimes Often Always

4. Shows exceptional ability to mobilize people and resources to get things done.

Never Occasionally Sometimes Often Always

5. Inspires others to do their best.

Never Occasionally Sometimes Often Always

6. Strongly emphasizes careful planning and clear time lines.

Never Occasionally Sometimes Often Always

7. Builds trust through open and collaborative relationships.

Never Occasionally Sometimes Often Always

8. Is a very skillful and shrewd negotiator.

Never Occasionally Sometimes Often Always

9. Is highly charismatic.

Never Occasionally Sometimes Often Always

10. Approaches problems through logical analysis and careful thinking.

Never Occasionally Sometimes Often Always

11. Shows high sensitivity and concern for others' needs and feelings.

Never Occasionally Sometimes Often Always

12. Is unusually persuasive and influential.

Never Occasionally Sometimes Often Always

13. Is an inspiration to others.

Never Occasionally Sometimes Often Always

14. Develops and implements clear, logical policies and procedures.

Never Occasionally Sometimes Often Always

15. Fosters high levels of participation and involvement in decisions.

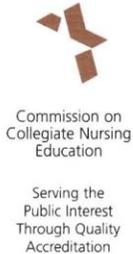
Never Occasionally Sometimes Often Always

16. Anticipates and deals adroitly with organizational conflict.

Never Occasionally Sometimes Often Always

17. Is highly imaginative and creative.

APPENDIX F: APPROVAL TO SURVEY FROM CCNE



February 4, 2008

Ms. Brenda Higgins
7 Catalina Drive
Kirksville, MO 63501

Dear Ms. Higgins,

Thank you for contacting the Commission on Collegiate Nursing Education (CCNE)--a nationally recognized accrediting agency for baccalaureate and graduate nursing education--about your interest in contacting CCNE-accredited nursing programs as part of your dissertation research. I understand that you wish to contact the chief nurse administrators and faculty as part of your research.

One Dupont Circle, NW
Suite 530
Washington, DC
20036-1120
202-887-6791
fax 202-887-8476
www.aacn.nche.edu

On behalf of CCNE, you have my permission to contact these individuals for your study. This verifies that your research is not being conducted or funded by CCNE and will have no impact on the CCNE-accreditation status of these programs.

To access the current listing of CCNE-accredited nursing programs at the baccalaureate and master's degree levels, please visit the CCNE Web site at www.aacn.nche.edu/accreditation. This information is available to the public.

I wish you the best of luck as you proceed with your doctoral studies.

Sincerely,



Jennifer Butlin, EdD
Director

APPENDIX G: ADMINISTRATOR PARTICIPATION REQUEST LETTER

January 15, 2008

Dear Nursing Program Administrator,

I am writing to enlist your support for a study entitled, "An Evaluation of the Relationship of Nursing School Administrators' Leadership Frame Orientation to Faculty Perceptions of Job Satisfaction and Leadership Effectiveness." This research is the focus of my doctoral dissertation in the Educational Leadership Program at the University of Missouri-Columbia. As a nurse educator for nearly 20 years, I share the concern of nurse educators and administrators across the country who are having difficulty recruiting and retaining sufficient numbers of nursing faculty. I am hoping that my study may contribute to the body of knowledge necessary to resolve this longstanding problem.

In my study, faculty from baccalaureate and graduate nursing programs across the United States will be sampled, through the assistance of program administrations like yourself. As the administrator of the nursing program, I am requesting that you (or your designated clerical assistant) forward the attached introductory letter and request for participation in my study to all of your full-time nursing faculty who currently hold no administrative titles. Your assistance, along with other administrators across the nation, is vital in order for this survey to reach nurse educators across the country.

After receiving the introductory letter and link to the survey, willing nursing faculty will be asked to complete the short survey and submit it electronically via a secure survey site. The survey requires approximately 15-20 minutes to complete. Faculty participation will be voluntary and faculty will be allowed to withdraw from the study at any time without negative consequence. They may also refrain from answering questions of their choice.

Following collection of the surveys, I will pool all the data for analysis and WILL NOT personally identify you, your school, or any faculty members in reporting the results of the study. Faculty responses concerning administrative leadership will not be individually linked to specific schools or administrators. Thus, I can assure strictest confidentiality to all study participants.

I understand how valuable your time is and am greatly dependent upon your assistance for success of this study. Therefore, I sincerely appreciate your cooperation with this research. If you have any questions or comments regarding my research, you may e-mail me at bhiggins@truman.edu, or my faculty advisor, Dr. Joe Donaldson at DonaldsonJ@missouri.edu. For additional information regarding human subject participation and research, please feel free to contact the University of Missouri-Columbia campus IRB office at 573-882-9585. I look forward to including data from faculty at your school in the study and I hope this research will significantly contribute to solving the nursing faculty shortage problem.

Sincerely,

Brenda Higgins, MSN, APRN, BC
Doctoral Candidate

APPENDIX H: FACULTY PARTICIPATION REQUEST LETTER

January 30, 2008

Dear Nursing Faculty Colleague,

I have asked your program administrator to forward this introductory letter to you so that I can request your participation in a study entitled, "An Evaluation of the Relationship of Nursing School Administrators' Leadership Frame Orientation to Faculty Perceptions of Job Satisfaction and Leadership Effectiveness." This study is surveying nursing faculty members holding full-time positions in baccalaureate or graduate nursing programs accredited by the CCNE, who do not currently hold administrative titles. The results of this investigation will be summarized in a dissertation that I am completing for a doctorate in Educational Leadership at the University of Missouri-Columbia.

The purpose of this study is to determine how the leadership style of the nursing program/school administrative leader impacts faculty satisfaction and faculty perceptions of leadership effectiveness. As a nurse educator for nearly 20 years, I share the concern of nurse educators, like yourself, and administrators across the country who are having difficulty recruiting and retaining sufficient numbers of nursing faculty. I am hoping that my study may contribute to the body of knowledge necessary to resolve this longstanding problem.

Your participation in this study is voluntary. You may choose not to respond to any or part of the study and may withdraw from the study at any time without personal consequence. The collected data will be reported in aggregate form. Your nursing school/program administrator will absolutely be unable to link any of your responses back to your facility or administrator. In fact, your administrator will not even know whether or not you participated in this study. The survey takes approximately 15-20 minutes to complete on-line and includes a leadership component, a job satisfaction component, and a demographic component. Strictest confidentiality will be maintained. CONSENT TO PARTICIPATE IS ASSUMED WHEN YOU CONNECT TO THE SECURE SURVEY LINK, COMPLETE THE SURVEY, AND SUBMIT IT ON-LINE.

As a nursing colleague, I understand how valuable your time is and greatly appreciate your cooperation with this research. If you have any questions, you may e-mail me at bhiggins@truman.edu or phone 660-785-4562. Alternatively, you may reach my dissertation advisor at DonaldsonJ@missouri.edu. For additional information regarding human subject participation and research, please feel free to contact the University of Missouri-Columbia campus IRB office at 573-882-9585.

To participate in the survey, please click on the following link within the next 7 to 10 days and submit electronically as directed in the survey: <http://studenthealth.truman.edu/leadershipsurvey>.

Thank you for your time and participation in this study.

Sincerely,

Brenda Higgins, MSN, APRN, BC
Doctoral Candidate

VITA

Brenda Craig Higgins received her Bachelor of Science in Nursing degree from Truman State University (1984), and her Master of Science in Nursing (1990) and Post-Masters Family Nurse Practitioner Certificate (1996) from the University of Missouri-Columbia. She has worked as a staff nurse in obstetrics and pediatrics, prior to joining the nursing faculty at Truman State University where she currently holds the rank of Assistant Professor of Nursing. She is the Director of the Student Health Center and a Family Nurse Practitioner at Truman State University. She is married to James T. Higgins. They have two adult children, Craig and Kristen.