Mentor-Protégé Assessments: Why it Matters?

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Abstract

There is currently a shortage of leaders in the healthcare industry. Mentoring has been identified as an effective technique to train healthcare employees into skilled leaders. To build an effective mentoring relationship there should be an agreement between the mentor and protégé about the quality of the mentoring relationship. This paper makes a contribution in the area of mentoring and transformational leadership by determining whether mentors and proteges have similar perceptions about the mentoring relationship in terms of skills acquisition, knowledge transference and honing of leadership behaviors with the support of quantitative data from 65 participants within the healthcare industry.

Keywords: mentoring, transformational leadership, self-assessments, MEPS standardized questionnaire.

Introduction

The healthcare sector is currently experiencing significant and rapid changes. To adapt and survive in this continuous and changing environment, healthcare organizations need to develop the leadership capabilities of their employees. Leadership behaviors are critical in the development of healthcare professionals (Chandler, 2005). According to Cirillo (2006) leadership turnover rates of CEOs in 4,566 hospitals tracked by the America College of Healthcare Executives is about 16 percent, which means that more than 700 organizations have new leaders each year, supporting the need for continual efforts to help build new leaders and reduce leader turnover due to lack of managerial skills.

In the healthcare field, employees usually enter at the workplace at lower, entry level positions (Loebs, 2004; Scott and Caress, 2005). When these employees advance to managerial positions through promotions, they possess appropriate academic qualifications but lack leadership skills and abilities (Bally, 2007). However, the long term success of the organization is dependent on the development of a continuous stream of future leaders. Leaders, who possess the ability to create, communicate, and garner colleague, peer, subordinate support for organizational policies and objectives. Leaders, who can motivate and inspire employees, bring about employee collaboration and effectively resolve conflicts and problems within the organization. Transformational leadership describes all these set of behaviors. Transformational leadership consists of Four I's (individualized consideration, idealized influence, inspirational motivation and intellectual stimulation) which parallel the functions and outcomes of mentoring process (Scandura and Schriescheim, 1994). Transformational leadership consists of behaviors that form "a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents" (Burns, 1978: 4). Transformational Leaders are able to take risks and obtain the support of the followers without using any form of extrinsic rewards. These leaders are able to motivate their followers to work towards goals and objectives determined by the organization. They are able to align follower self-interest with the overall interest of the group, organization and society (Clair and Deluga, 2001).

Mentoring has the potential to train employees into skilled leaders. Mentoring is the process where individuals with experience and knowledge support and facilitate upward mobility of junior organizational members (Allen, Russell and Maetzke, 1997; Ragins and Scanduara, 1997). Mentor-protégé relationships involve a more skilled or experienced mentor who helps to advance the career of a lesser skilled protégé (Washington, 2011). Mentoring provides ongoing career development, facilitation of organizational learning and improved retention (Perrone, 2003), effective socialization of junior employees (Schein, 1978), effective promotion and compensation (Dreher and Ash, 1970), career mobility and advancement (Scandura, 1992), career satisfaction (Fagenson, 1989), career commitment (Colarelli and Bishop, 1990), enhanced productivity (Tyler, 1998), job satisfaction (Bahniuk, Dobos and Hill, 1990), and reduced turnover intentions (Viator and Scandura, 1991). Mentoring relationships help the protégé identify skills and decisions necessary to pursue management positions which advance a career towards administration and upper management (Tharenou and Terry, 1998). Mentoring, thus, plays a critical role in leadership development and individual career success within the healthcare sector. It provides future potential management and administrative employees to hone and develop leadership capabilities to contribute meaningfully to organizational development and success.

Previous research has linked up literature on mentoring with the theoretical concepts of transformational leadership (e.g. Godshalk and Sosik, 2000 & Sosik and Godshalk, 2000). The "developmental nature of transformational leadership parallels the functions and desired outcomes of the mentoring process" (Scandura & Schriescheim, 1994 as cited in Godshalk and Sosik, 2000: 292). Leaders are responsible for recognizing which policies and programs to address, identifying the needs of the healthcare environment, and for implementing mentoring programs in the healthcare environment (Randle, 2003). Effective

healthcare leaders serve to inspire others with individualized consideration while modeling idealized behavior (Bally, 2007; Chandler, 2005; Randle 2003). Leaders provide intellectual stimulation to support professional growth and development of all organizational members. Finally, the mentors themselves learn from their participation within these mentoring programs and are able to serve as efficient and effective leaders.

Quality of mentoring may be dependent on the mentor-protégé perception of the relationship. A self-aware mentor is able to incorporate feedback, make adjustments as needed and improve his/her behavior. To ensure an effective mentoring relationship and development of transformational leaders, there should be an agreement between the mentor and protégé about the overall outcome of the relationship. Relying solely on self-ratings may lead to inflated, inaccurate and biased assessments. There is a need to examine the perceptions of mentors in the healthcare field by their proteges and to compare how this might differ from their overall perceptions.

This study is interested in determining whether mentors and proteges have similar perceptions of the mentoring relationship in terms of skills and knowledge acquisition and honing of leadership behaviors. This paper has been divided into four sections. The first section links up literature on transformational leadership and mentoring. The second section discusses the methodological issues. The third section covers the empirical analysis and discussion. The fourth and final section of the paper provides a brief conclusion.

Theoretical Background

The models of mentoring and leadership differ on a number of accounts. Leadership is a performance oriented influence process whereas mentoring is a long term relationship which is career and development oriented (Burke, McKenna and McKeen, 1991). Leadership involves one leader and more than one follower while mentoring usually involves one mentor and one protégé. Leadership is formal, overt and direct while mentoring is informal, subtle and an indirect process (Applevaum, Ritchie and Shapiro, 1994). But there are similarities existing between the models. Mentors have been described as agents of culture and transformational leaders are concerned with creating and changing organizational culture. Mentors like leaders shape values and transfer skills through role modeling. In both situations, the leader/mentor is interested in enhancing the personal effectiveness and development of the follower/protégé.

Mentors are experienced individuals who are committed to training and developing their proteges leading to career progression. A mentor takes a personal interest in the protégé and shares values, knowledge, and experience acquired throughout his/her career (Ragins and Cotton, 1999). Mentors assist and support proteges in two ways—psychological support and career development. They help their proteges develop into competent, effective members of the organization. Psychosocial support is provided through role modeling, counseling, and friendship. These functions lead to better self-efficiency, competence and proper focus on career development. Mentor informs the protégé about opportunities for advancement, arranges challenging assignments, increases exposure, and provides more visibility to the accomplishments of the protégé. S/he offers specific suggestions, advice and feedback at the appropriate moments to help protégé build his/her technical, political and managerial skills. Mentors also protect their proteges from harsh external criticism. It is an overall personal relationship where the mentor takes pride in all of the protégé's accomplishments.

Transformational leadership is suitable for those working environments which are unpredictable, turbulent, and continuously changing. Situations where the leaders are "willing to take risks and are able to obtain the support of their followers without explicit extrinsic rewards (Clair and Deluga, 2001: 8). It consists of "Four Is"—individual consideration, idealized influence, inspirational motivation and intellectual stimulation (Bass and Avolio, 1994). Individualized consideration refers to giving personalized attention to the follower's career development, career growth and achievement. The leader provides a supportive climate for

the follower, monitors his/her work, provides feedback and guidance. Individualized consideration can be directly linked to the functions of mentoring. Mentoring has been identified as a key aspect of individualized consideration (Bass, 1998). The activities of individualized consideration are consistent with psychological support behaviors present in the mentoring literature. Individual consideration also overlaps with the career development and coaching activities existing within the mentoring literature (see Table 1 which shows commonalities between individualized consideration and career development and psychosocial support).

Table 1: Theoretical Links between transformational leadership and mentoring activities:

TRANSFORMATIONAL LEADERSHIP ACTIVITIES	MENTORING ACTIVITIES	LINKS
Individualized Consideration	Career Development	Similar
	Sponsorship	Similar
	Exposure and Visibility	Similar
	Challenging Assignments	Similar
	Coaching	Similar
	Protecting	Similar
	Psychological Support & Role Modeling	Similar
Idealized Influence	Counseling	Similar
Inspirational Motivation	Challenging Assignments	Similar
Intellectual Stimulation	Challenging Assignment & Coaching & Protecting	Similar

Idealized consideration emerges when transformation leaders allow transmission of appropriate behaviors by being role models to their followers (Bass, 1998; Bass and Avolio, 1994). Followers learn from their leader's actions, high ethical standards and willingness to take risks. Idealized consideration is similar to the concept of role modeling in the mentoring literature (See Figure 1 in Appendix). To be effective role models, leaders must be respected and trusted and should give precedence to the needs of others (Godshalk and Sosik, 2000).

The ability to motivate and inspire followers, generate enthusiasm and optimism to take up challenges existing within the organization is known as inspirational motivation. Mentoring also involves providing challenging assignments to the protégé and making work meaningful for him/her (Godshalk and Sosik, 2000; Sosik and Godshalk, 2000).

Intellectual Stimulation includes activities of reflecting, questioning assumptions, reframing problems, developing new ideas, and being creative. The transformational leadership concept of intellectual stimulation is similar to career development functions like coaching, encouraging critical thinking and providing challenging assignments (Godshalk and Sosik, 2000; Sosik and Godshalk, 2000). Moreover intellectual stimulation is against public criticism of the follower which overlaps with mentor's function of protecting protégé and ignoring their mistakes (see Figure 1 in Appendix).

There are logical connections between features of transformational leadership model and mentoring model. Professional leaders must guide and help develop new leaders through promotion and participation in mentoring. However not all mentors are effective. Issues such as gender, age, knowledge, experience, and similar criteria within mentoring partnerships have materialized as factors that affect the outcome of mentoring relationships. Mentoring does not "just happen" and does not "emerge as a passive result of actions taken by participants within a specific setting" (Johnson, 2002 as cited in Washington, 2011: 88). In

fact "there must be a good fit" (Oliver and Aggleton, 2002: 30) between the mentor and protégé for any mentoring relationship to be successful. The nature of a mentor-protégé relationship affects mentor's behavior and outcome of the relationship. "The mentor's behavior is influenced by the protégé's needs, the mentor's perception of the protégé's needs, and the ability and motivation of the mentor to meet the needs of the protégé" (Ragins, 1997: 502). Awareness by the mentor of his/her weaknesses and shortcomings would improve the mentoring relationship and the mentor's leadership behavior. Goleman (1998) argues that self-awareness (i.e., accurate assessment of one's leadership style) improves mentoring and leadership processes and outcomes. Research by Sosik and Megerian (1999) suggested that when the mentor and protégé assessments are similar i.e., mentor's ratings are positively related to subordinate ratings, the mentoring relationship is effective. Optimum quality in a mentoring relationship is ensured when mentor and protégé agree about the overall effectiveness of the mentor's style of leadership. This study examines the mentor and perceptions of the leadership ability of the mentor and how this impacts the overall skill development of the protégé at three levels:

(i) Task Skills: problem solving, time management, planning, goal setting, performance leadership and organizing.
(ii) Interpersonal skills: team development, delegation, participation, integrating differences and providing feedback.
(iii) Personal skills: stress processing, commitment and maintaining integrity.

The next section will discuss the methodological issues involved and the method selected to investigate the overall focus of this paper.

Methodology

Mentoring as a research topic has lent itself to qualitative research. The authors believe deviating from this preferred modality might provide more insights about the mentoring process within the healthcare organizations. Therefore the philosophy of positivism rooted in quantitative methods was chosen.

Positivism or logical positivism is a form of empiricism developed in Europe after World War I by a group called the Vienna Circle (Godfrey-Smith, 2003). The term "*positivism*" came from early beginnings in the 19th century with the work of August Comte. Inspired by works of Einstein and like-minded peers; the Vienna Circle added the term "logical" positivism or "logical empiricism" to further their cause which was an adherence to the scientific principles of research (Godfrey-Smith, 2003: 23). Positivism refers to the notion that knowledge derives only from observable facts. Positivists subscribe to the principle of verification, which is the view that confirmation or disconfirmation of knowledge takes place through empirical observations and the scientific method. Logical positivists advanced the verifiability criterion of meaning referred to as *verificationism*. This perspective holds that axiological judgments by themselves are meaningless, and any statement that empirical observation cannot prove cannot be accepted as knowledge or truth. Evaluative judgments do not state facts that a researcher can observe empirically rendering such judgments worthless and meaningless. According to Pieper (1981), logical positivist approaches include three major aspects: "Measurement could be objective, value free, and theory free; the only legitimate goal of science is prediction; and linear cause and effect reasoning is the only way to reach legitimate and useful conclusions about human behavior" (Pieper, 1981 as cited in Bolland & Atherton, 2002: 8).

Arguments against positivism include that it is impossible to make an observation without using some type of language from some theory. Thus, a theory-free observation cannot exist, as even a common-sense thought issues from theory (Popper, 1983). Popper rejected induction as a method of verifying scientific knowledge and stated that gaining knowledge occurs when one scientist finds a way to refute a theory stated

by a previous scientist. Some have criticized Popper's idea of falsification with the notion that even the challenge of an existing theory is false (Bolland & Atherton, 2002).

Despite the problems with the scientific method and empirical research, positivism or logical positivism provides an understanding of the need to verify information in order to gather knowledge. Positivism provides a theoretical framework for the quantitative study of an issue. The theory of logical positivism was deemed focal and highly appropriate for this particular quantitative research investigation which relied on statistical analysis to draw conclusions and present a body of knowledge. Consistent with logical positivism views regarding the need to reject the null hypotheses, the intent of the study was to test the null hypotheses regarding the relationship between length of time in a mentoring relationship and managerial skill levels and the differences between mentor and protégé perceptions of these managerial skill levels. Positivist philosophy advocated for the use of quantitative methods, such as the Management Effectiveness Profile System (MEPS), a standardized survey. This assessment tool was considered appropriate to evaluate the three focal skill-sets which form the bedrock of the mentoring relationship i.e. task skills, interpersonal skills, and personal skills. MEPS also allows the researchers to gather relevant numerical data for statistical analysis and to test the hypotheses.

The primary author sought the permission of Human Synergistics to use the online version of the MEPS survey. The MEPS is a 360-degree, online assessment tool designed to provide participants with information on leadership skills based on a Self-Description and a Description by Others Inventory for mentors and protégés. The survey evaluates performance in 14 skill areas related to the categories of task, interpersonal, and personal skills.

Human Synergistics designed the questionnaire by identifying a set of 90 questions through interviews with managers regarding managers. Participants responded to questions such as, "What kinds of things did they do that caused them problems?" (Cooke, 1989: 724). Responses described ways that otherwise effective people failed as managers. Scoring processes sorted responses, identified frequently reported dysfunctional behaviors, and then paired them with corrective or opposite behaviors. The sets of behaviors served as anchors for the endpoints of a 7-point scale for rating managers (Cooke, 1989).

The background and history of the MEPS includes an analysis of the scale. Cooke (1989) conducted a study with a group of 404 managers. Cases for analysis included mid-and upper-level managers from different institutions: insurance companies, banks, financial service organizations, computer manufacturing and sales organizations, a chemical company, a food processor, a public utility, supermarket chains, and a food wholesaler-retailer. Most organizations were located in the Midwest and Southern United States. Respondents provided descriptions of managers. Cooke reported most managers described subordinates ($n = 621$), some described peers ($n = 342$), others described superiors 9 ($n = 375$), and the remainder described friends ($n = 33$) or adversaries ($n = 101$).

The MEPS allows investigation of effectiveness of mentors on 14 different skill areas. The skill areas can be organized into three categories:

- Task skills: Setting goals and objectives, identifying problems, planning effectively, organizing, and making decisions.
- Interpersonal skills: Delegating, building teams, evaluating performance, developing subordinates, and managing conflict.
- Personal factors: Time effectiveness, stress reactions, commitment level, and trust level (Cooke, 1989)

A final category is results orientation and asset control, which is separate from the three general areas (Cooke, 1989).

Scores also have graphs identifying specific development needs and comparing findings with others in these 14 key functional areas. Participants have an individual score for each of the areas under each skill area and an average score for each area. Scores can range on a 7-point scale. The scores show how managers view themselves, how others perceive them, and how their scores compare with others, thereby demonstrating their proficiency as a manager and a leader in the organization (Human Synergistics International, 2007).

MEPS generates a feedback report which has six sections:

1. Summary perceptions: Item-by-item feedback. Individual results on the individual survey items used to measure your overall task, interpersonal, and personal effectiveness are in this section.

2. Management skills: overview: This overview highlights the skill areas that others view to be their greatest strengths, as well as those that represent their greatest opportunities for development. The consistency (or lack thereof) between your Self-Description and Description by Others results with respect to your skills is summarized.

3. Management skills: Profiles: overall results along the 14 management skill areas, as reported by you and your raters, are presented in "raw" form (including mean and standard deviations across raters) and in "normed" charts (showing your percentile scores relative to scores for 5,142 managers).

4. Management skills: Item-by-item feedback: Bar charts show your response to the seven specific items measuring each of the 14 skill areas, profiled against the average responses by your raters.

5. Self-development plan. This section consists of a series of short assignments designed to guide you in identifying the specific skills one should develop, the behaviors which need to be changed, and the support you can enlist to help you achieve your goals (Human Synergistics International, 2007: 1).

Thus, scoring processes compute the average of the responses for the scale scores for the six items associated with each personal factor, task, or skill. Cronbach's alpha was the test chosen to estimate internal consistency reliability for each category. These scores were ANOVA tests and the eta-squared statistic assessed inter-rater agreement. Averaged descriptions were correlated with self-descriptions to show consensual validity (Cooke, 1989). In addition, item-total correlations show the items correlated with their own categories, compared to other categories. Concurrent criterion-related validity was tested with an estimate of overall effectiveness of the managers, based on responses to supplementary items: one assessed managers' performance in current position and one assessed suitability for promotion (Cooke, 1989).

MEPS is a diverse and rich assessment of different behaviors which automatically lead to effective performances as executives. The items assess people- and task-related skills as well as personal skills and factors. The content of items results in high internal consistency reliability; however, many items correlate with categories beyond the intended, as some behaviors are critical to more than one task or issue. Average scores tend to be high for each category and researchers should therefore interpret them with caution (Cooke, 1989).

The MEPS instrument provided data to determine how mentors and protégés perceived the effectiveness of the mentor's leadership skills. The MEPS instrument evaluated performance in 14 skill areas related to the categories of task, interpersonal, and personal skills. The purpose of the research questionnaire was to investigate particular mentoring factors related to skill levels. Close-ended questions on the questionnaire provided numerical data for statistical analysis.

The next section covers the research questions and hypotheses, statistical analysis of empirical data collected using the Management Effectiveness Profile System (MEPS) (Creswell, 2003).

Empirical Analysis & Discussion

This section provides the descriptive and inferential data analysis results and addresses the research questions and hypothesis associated with the study. This study examined three research questions and hypotheses.

Research Question 1: Is there a significant difference between mentors' self-perceptions and protégés' perceptions of their mentor's leadership effectiveness in the area of task skills, after adjusting the task skill scores for length of time in the mentoring relationship?

$H1_0$: There is no significant difference between mentors' self-perceptions and protégés' perceptions of their mentors' effectiveness in the area of task skills, after adjusting the task skills scores for length of time in the mentoring relationship.

$H1_A$: There is significant difference between mentors' self-perceptions and protégés' perceptions of their mentors' effectiveness in the area of task skills, after adjusting the task skills scores for length of time in the mentoring relationship.

Research Question 2: Is there a significant difference between mentors' self-perceptions and protégés' perceptions of their mentors' effectiveness in the area of interpersonal skills, after adjusting the interpersonal skills scores for length of time in the mentoring relationship?

$H2_0$: There is no significant difference between mentors' self-perceptions and protégés' perceptions of their mentors' effectiveness in the area of interpersonal skills, after adjusting the interpersonal skills scores for length of time in the mentoring relationship.

$H2_A$: There is significant difference between mentors' self-perceptions and protégés' perceptions of their mentors' effectiveness in the area of interpersonal skills, after adjusting the interpersonal skills scores for length of time in the mentoring relationship.

Research Question 3: Is there a significant difference between mentors' self-perceptions and protégés' perceptions of their mentor's effectiveness in the area of personal skills, after adjusting the personal skills scores for length of time in the mentoring relationship?

$H3_0$: There is no significant difference between mentors' self-perceptions and protégés' perceptions of their mentors' effectiveness in the area of personal skills, after adjusting the personal skill scores for length of time in the mentoring relationship.

$H3_A$: There is significant difference between mentors' self-perceptions and protégés' perceptions of their mentors' effectiveness in the area of personal skills, after adjusting the personal skills scores for length of time in the mentoring relationship.

The MEPS instrument assessed participant responses and explored the perceptions of mentors and the perceptions of mentors by their protégés regarding the effectiveness of the mentors' to determine if a difference existed between the two groups.

Statistical analysis compared survey findings from the mentors and protégés regarding skill levels to determine if both groups viewed the mentoring relationship similarly. The study included 65 pairs of

mentors and protégés. The mentor completed the MEPS Self and the protégé completed the MEPS Other. Comparison of the mentor's scale scores with the protégé's scale scores and determination of the relationship between the length of the mentoring relationship and skill levels in protégés were the processes used to test the hypotheses.

Research Question 1. The first research question asked if a significant difference between mentors' self-perceptions and protégés' perceptions of their mentor's effectiveness in the area of task skills existed after adjusting the task skill scores for length of time in the mentoring relationship. The null hypothesis stated that no significant difference existed while the research hypothesis stated that a significant difference did exist between the two sets of ratings.

Table 1 shows the psychometric properties of the task skills scale, including the descriptive statistics. The results indicated the mean rating for the mentors was 4.02 and the mean rating for protégés was 4.23. The reliability for the mentor task skills scale was excellent, $\alpha = .95$, while the reliability for the protégé task skills scale was moderate to good, $\alpha = .69$ (Ponterotto & Ruckdeschel, 2007). The mentor distribution of scale scores was positively skewed (2.14) while the protégé distribution was slightly negatively skewed (-0.15). The variability in the mentors' ratings was greater than the variability in the protégés' ratings, as indicated by the standard deviations (0.35 and 0.23, respectively).

Table 1 *Psychometric Properties of the Task Skills Scale*

Variable	n	M	SD		Range		Skew
					Potential	Actual	
Task skills							
Mentor	65	4.02	0.35	0.95	1-7	3.5-5.8	2.14
Protégé	65	4.23	0.23	0.69	1-7	3.7-4.8	-0.15

In order to show the distribution of scores, box plots were constructed. The box plots featured in Figure 2 indicate that the range of values was relatively narrow and the distributions were relatively symmetrical, with the exception of the outlier on the upper end of the scale for the mentor group, which caused the positive skew in the data. However, the whiskers for both distributions were relatively symmetrical and the median value represented by the black line inside the grey box (inter-quartile range) was positioned close to the middle of the box. Therefore, no major distributional violations were detected.
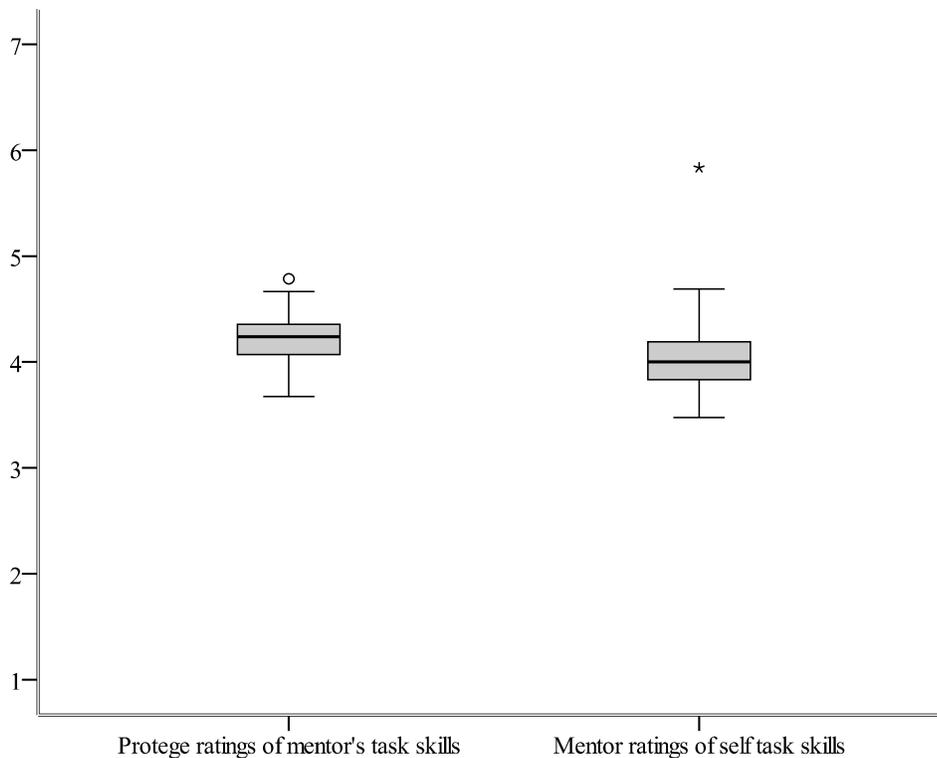
Figure 2. Box plots representing the distributional characteristics of the mentors' self-ratings and the protégés' ratings of the mentors' task skills.

The next analysis conducted was the Pearson correlation between the protégés' length of time in the mentoring relationship and their ratings of their mentors' task skills. The results indicate that no significant relationship was present, $r(59) = -.14$, $p = .281$. Six of the participants did not indicate their length of time in the mentoring relationship, resulting in a sample size of 59. Figure 3 provides a visual depiction of the association between the length of the mentoring relationship and protégés' task skills scale score ratings of their mentors. No relationship exists, given that there was almost no slope in the line of best fit through the center of the data points.
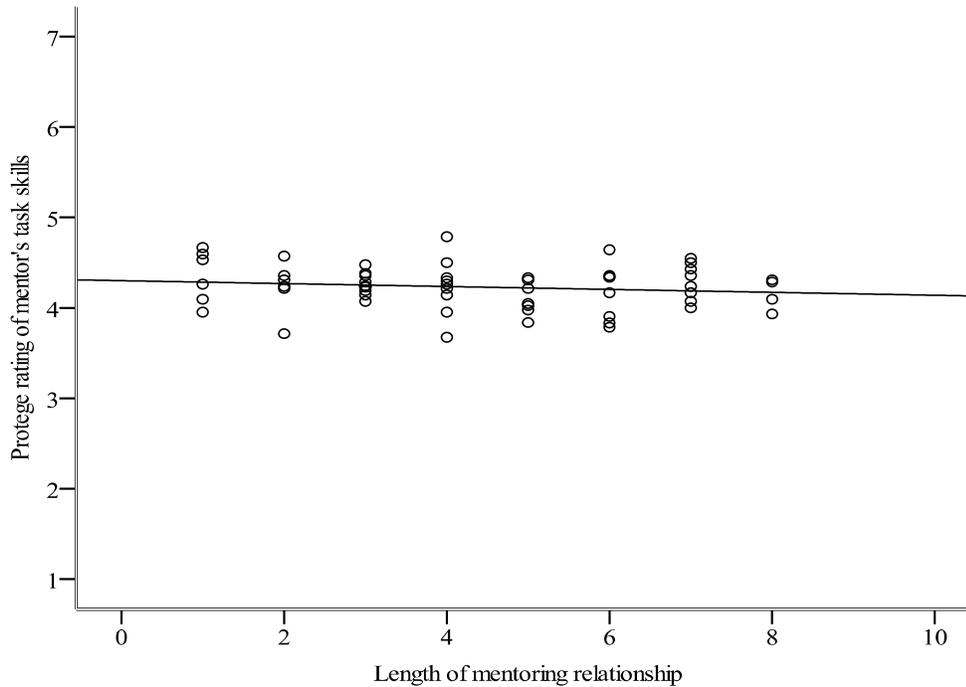
Figure 3. Scatter plot illustrating the relationship between protégés' length of time in the mentoring relationship and their task skills ratings of their mentors. Covariate is not related therefore it wasn't further analyzed in the length of the relationship. The length of time in the relationship was measured by weeks.

Because no significant relationship was present between length of mentoring relationship and protégés' ratings of their mentors' task skills, no adjustment to the task skills scale scores was necessary or appropriate. Therefore, instead of conducting an ANCOVA, a paired-samples *t* test was conducted.

The results of the paired samples *t* test in Table 6 indicated that the .20 mean difference between the protégés' ratings of their mentors and their mentors' ratings of themselves was statistically significantly different, $t(64) = 3.78$, $p < .001$.

Table 2 *Paired Samples t test Results for Task Skills*

	Mean difference	95% CI		*t*	*df*	*p*
		Lower	Upper			
Task skills	0.20	0.10	0.31	3.78	64	< .001

Note. CI = confidence interval.

The results for research question 1 indicated there was a significant difference between mentors' self-perceptions and protégés' perceptions of their mentor's effectiveness in the area of task skills. Therefore, the null hypothesis was rejected.

<u>Research Question 2.</u> The second research question asked if a significant difference between mentors' self-perceptions and protégés' perceptions of their mentor's effectiveness in the area of interpersonal skills existed after adjusting the interpersonal skills scores for length of time in the mentoring relationship. The null hypothesis stated that no significant difference existed, while the research hypothesis stated that a significant difference did exist between the two sets of ratings.

The psychometric results for the interpersonal skills scale featured in Table 2 indicated the mean rating for the mentors was 4.00 and the mean rating for protégés was 4.09. The reliability for the mentor task skills

scale was excellent, α = .93, while the reliability for the protégé task skills scale was good, α = .70 (Ponterotto & Ruckdeschel, 2007). The mentor distribution of scale scores was positively skewed (1.31) while the protégé distribution was slightly negatively skewed (-0.37). The variability in the mentors' ratings was similar to the variability in the protégés' ratings, as indicated by the standard deviations (0.27 and 0.23, respectively).

Table 3 *Psychometric Properties of the Interpersonal Skills Scale*

Variable	*n*	*M*	*SD*		Range		Skew
					Potential	Actual	
Interpersonal skills							
Mentor	65	4.00	0.27	0.93	1-7	3.6-5.1	1.31
Protégé	65	4.09	0.23	0.70	1-7	3.5-4.6	-0.37

In order to show the distribution of scores, box plots were constructed. The box plots featured in Figure 4 indicate that the range of values was relatively narrow and the distributions were relatively symmetrical, with the exception of two extreme values below the median for the protégé group and two extreme values above the median for the mentor group. The extreme values caused the negative skew in the protégé group and the positive skew in the mentor group. However, the whiskers for both distributions were relatively symmetrical and the median value was positioned close to the middle of the box. Therefore, no major distributional violations were detected.
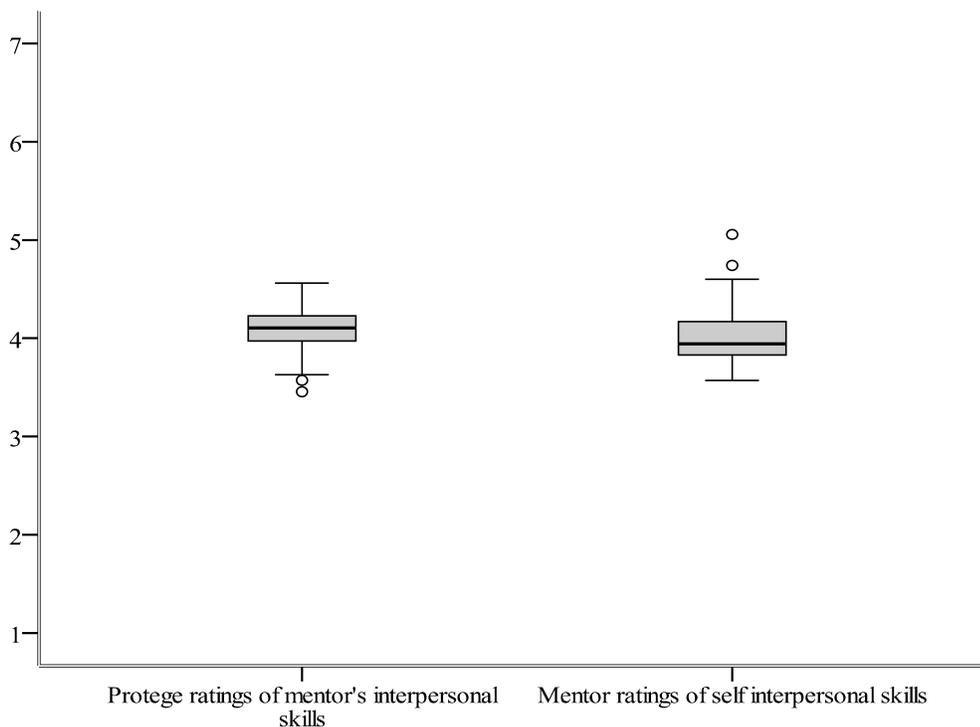
Figure 4. Box plots representing the distributional characteristics of the mentors' self-ratings and the protégés' ratings of the mentors' interpersonal skills.

The Pearson correlation results between the protégés' length of time in the mentoring relationship and their ratings of their mentors' interpersonal skills indicated that no significant relationship was present, r (59) = -.01, p = .963. Figure 5 provides a visual confirmation that no relationship exists, given that there was no slope in the line of best fit through the center of the data points.
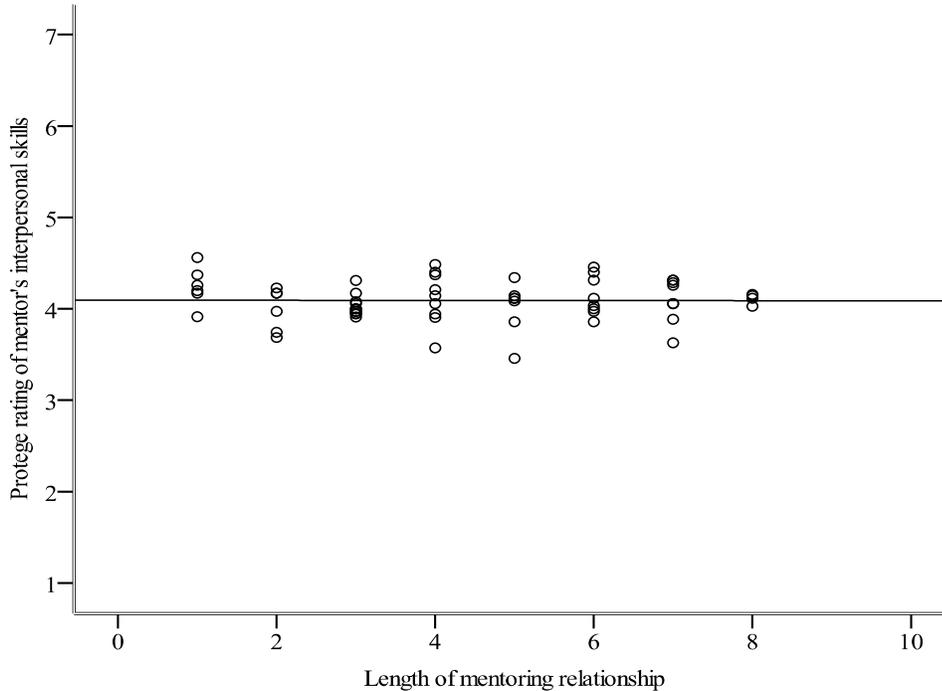

Figure 5. Scatter plot illustrating the relationship between protégés length of time in the mentoring relationship and their interpersonal skills ratings of their mentors.

Because no significant relationship was present between length of mentoring relationship and protégés' ratings of their mentors' interpersonal skills, no adjustment to the interpersonal skills scale scores was necessary or appropriate. Therefore, instead of conducting an ANCOVA, a paired-samples t test was conducted.

The results of the paired samples t test in Table 4 indicate that the .09 mean difference between the protégés' ratings of their mentors and their mentors' ratings of themselves was statistically significantly different, $t(64) = 2.11$, $p = .038$.

Table 4 *Paired Samples t Test Results for Interpersonal Skills*

		95% CI				
	Mean difference	Lower	Upper	*t*	*df*	*p*
Interpersonal skills	0.09	0.00	0.17	2.11	64	0.038

Note. CI = confidence interval.

The results for research question 2 indicated there was a significant difference between mentors' self-perceptions and protégés' perceptions of their mentor's effectiveness in the area of interpersonal skills. Therefore, the null hypothesis was rejected.

Research Question 3.   The third and final research question asked if a significant difference between mentors' self-perceptions and protégés' perceptions of their mentor's effectiveness in the area of personal skills existed after adjusting the personal skill scores for length of time in the mentoring relationship. The null hypothesis stated that no significant difference existed while the research hypothesis stated that a significant difference did exist between the two sets of ratings.

Table 5 provides the psychometric properties of the personal skills scale and the descriptive statistics. The results indicated that the mean rating for the mentors was 3.99 and the mean rating for protégés was 4.14. The reliability of the mentors' responses was excellent, $\alpha = .88$, while the reliability for the protégés responses was poor, $\alpha = .45$ (Ponterotto & Ruckdeschel, 2007). Therefore, the protégé participants were not highly consistent in their personal skills ratings of their mentors. The mentor distribution of scale scores was positively skewed (1.72) while the protégé distribution was slightly positively skewed (0.20). The variability in the mentors' ratings was similar to the variability in the protégés' ratings, as indicated by the standard deviations (0.35 and 0.32, respectively).

Table 6 *Psychometric Properties of the Personal Skills Scale*

Variable	*n*	*M*	*SD*		Range Potential	Actual	Skew
Personal skills							
Mentor	65	3.99	0.35	0.88	1-7	3.3-5.7	1.72
Rater	65	4.14	0.32	0.45	1-7	3.5-4.9	0.20

The box plots featured in Figure 6 representing personal skills indicate that, again, the range of values was relatively narrow and the distributions were relatively symmetrical, with the exception of one outlier above the median for the mentor group. The extreme value caused the positive skew in the mentor distribution. However, no major distributional violations were detected.
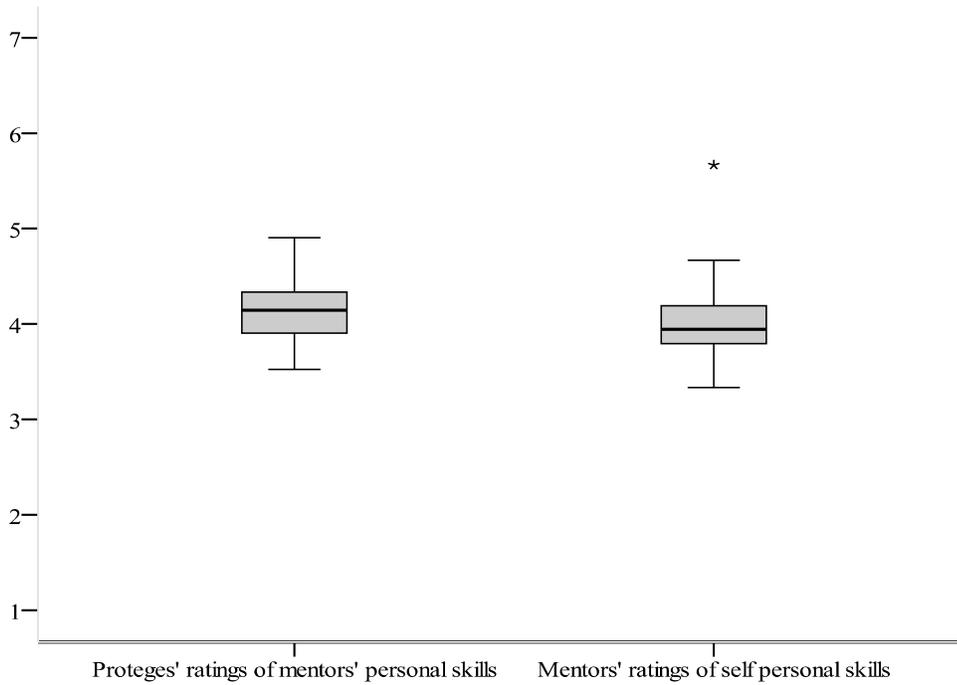
Figure 6. Box plots representing the distributional characteristics of the mentors' self-ratings and the protégés' ratings of the mentors' personal skills.

The Pearson correlation results between the protégés' length of time in the mentoring relationship and their ratings of their mentors' personal skills indicate that no significant relationship was found, $r(59) = .03$, $p = .807$. Figure 7 provides a visual confirmation that no relationship exists, given that there was no slope in the line of best fit through the center of the data points.
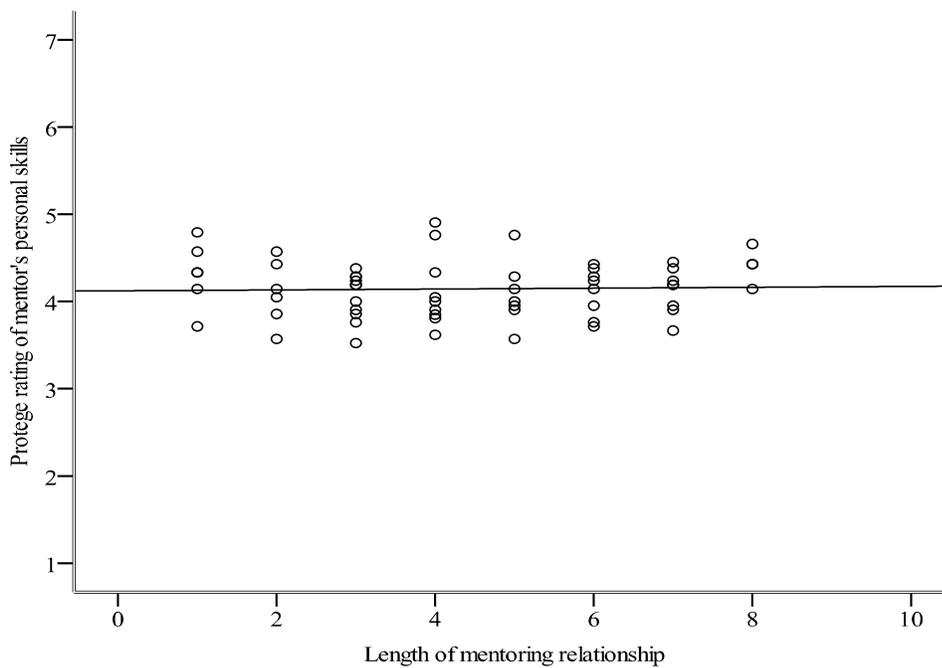

Figure 7. Scatter plot illustrating the relationship between protégés length of time in the mentoring relationship and their personal skills ratings of their mentors.

Because no significant relationship was found between length of mentoring relationship and protégés' ratings of their mentors' personal skills, no adjustment to the personal skills scale scores was necessary or appropriate. Therefore, instead of conducting an ANCOVA, a paired-samples *t* test was conducted.

The results of the paired samples *t* test in Table 7 indicate that the .15 mean difference between the protégés' ratings of their mentors and their mentors' ratings of themselves was statistically significantly different, $t(64) = 2.58$, $p = .012$.

Table 7: *Paired Samples t Test Results for Personal Skills*

Personal skills	Mean difference	95% CI		*t*	*df*	*p*
		Lower	Upper			
Personal skills	0.15	0.03	0.26	2.58	64	0.012

Note. CI = confidence interval.

The results for research question 3 indicated there was a significant difference between mentors' self-perceptions and protégés' perceptions of their mentor's effectiveness in the area of personal skills. Therefore, the null hypothesis was rejected.

The empirical analysis indicated that the protégés rated their mentors statistically significantly higher than the mentors rated themselves on all three measures which included task skills, interpersonal skills, and personal skills. Protégés saw their mentors as people who sought to create a conducive environment for their development through delegation and career development. The largest difference emerged between the protégés and the mentors with regard to task skills, followed by personal skills and finally interpersonal skills. The results of this study also indicated that the length of the mentoring relationship was not related to the ratings provided by the protégés with regard to their mentors' effectiveness.

Implications of findings are the mentors' self-perceptions and proteges' perceptions may differ with regard to mentors' effectiveness in the area of task skills, interpersonal skills and personal skills and these differences are not based on length of time in the mentoring relationship. Protégés' rated their mentors statistically higher than the mentors rated themselves. These findings mean that it is important to understand perspectives of both mentors and protégés' since they may differ. Implications are also that protégés may tend to have higher ratings of mentors than mentors have themselves since this was shown conclusively in the data.

Conclusion

There is a dearth of leaders within the healthcare industry. Mentoring has the potential to train employees into skilled leaders. This paper provided insights on the leadership behaviors and relationship between mentor and protégé by linking up the theoretical models of transformational leadership and mentoring. The paper argued the need for a good fit between the mentor and protégé for effective transference of leadership behaviors. There should be an agreement between mentor and protégé assessment of the overall mentoring relationship for all mentoring relationships to be effective. The study used MEPS survey to examine the difference in assessments on three managerial skills—task, interpersonal and personal skills (these skills complement the four I's of transformational leadership). The empirical analysis revealed that there was a significant difference in mentors self-perception and proteges perceptions of their mentors' effectiveness in the area of task skills, interpersonal skills and personal skills after adjusting the task skills scores for length of time in the mentoring relationship. Proteges tended to rate their mentors statistically higher than the

mentors rated themselves as leaders with regards to their effectiveness to task skills, interpersonal skills and personal skills.

Possible explanations of the findings include the possibility that most of the mentors were women and women tend not to have very strong self-image when it comes to leadership position (Schyns, von Elverfeldt & Felfe, 2008). Also the study included a small sample which did not represent different types of populations and mentoring relationships. The use of MEPS, a standardized questionnaire did not allow for a detailed understanding of the findings. Therefore studies in the future should adopt both quantitative and qualitative methods to provide a broader and detailed understanding of the discrepancies in the ratings of the mentor and protégé with regards to the quality of the mentoring relationship.

Impact of cultural factors on mentoring relationship was not explored. According to Crutcher (2007) if there is a lack of cultural awareness in the mentoring relationship this can lead to negative mentoring relationships. This means that even if mentors and protégés' are matched there can still be cultural differences and insensitivity that can affect the outcomes. Therefore the race/ethnicity and culture of the mentor and protégé need to be considered as well. Similarly the gender of the mentor and protégé can also influence the overall mentoring relationship. There is a higher probability that women may possess more leadership qualities of empathy, empowerment and authenticity in comparison to men. But its overall impact on the quality of mentoring relationship was not considered in this study.

Despite limitations the study findings indicate that protégés' may have higher ratings of mentors than mentors have of themselves and this provides new insights necessary for a more comprehensive understanding of the mentoring partnership.

References

Allen, T. D., Russell, J. E. A., & Maetzke, S. B. (1997). "Formal peer mentoring: Factors related to protégés' satisfaction and willingness to mentor others", *Group & Organization Management, 22*, 488-507. doi:10.1177/1059601197224005

Applevaum, S.H., Ritchie, R., & Shapiro, B.T. (1994) "Mentoring revisited: An Organizational Behaviour Construct", *Journal of Management Development*, Vol. 13 Iss: 4, pp.62 - 72

Bahniuk, M. H., Dobos, J., & Hill, S. E. (1990). "The impact of mentoring, collegial support,and information adequacy on career success: A replication", *Journal of Social Behavior and Personality, 5*, 431-451.

Bally, J. M. G. (2007). "The role of nursing leadership in creating a mentoring culture in acute care environments", *Nursing Economics, 25*(3), 143-148.

Bass, B. M. (1998). *Transformational leadership: Industry, military, and educational impact.* Mahwah, NJ: Erlbaum.

Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership.* Thousand Oaks, CA: Sage.

Bolland, K., & Atherton, C. (2002). "Heuristics versus logical positivism: Solving the wrong

Problem", *Families in Society, 83*(1), 7-13.

Burns, J. M. (1978). *Leadership*. New York: Harper and Row.

Burke, R. J., McKenna, C. S., & McKeen, C. (1991). "How do mentorships differ from typical supervisory relationships?" *Psychological Reports*, 68, 459-466.

Chandler, G. E. (2005). "Growing nurse leaders: An undergraduate teaching assistant program", *Journal of Nursing Education, 44*, 569-572.

Clair, L. and Deluga, R. J. (2001). *Transformational leadership and mentoring: Theoretical links and practical implications.* Bryant College Faculty Working Series.

Cirillo, A. (2006). "Leadership turnover: Don't lose sight of market strategy when new CEO takes the helm of your healthcare organization", *Healthcare Strategic Management, 24*(9), 15-16.

Cooke, R. A. (1989). "Assessing managerial skills with the Management Effectiveness Profile System**,** *Psychological Measurement*, *49*, 723. doi:10.1177/001316448904900327

Colarelli, S. M., & Bishop, R. A. (1990). "Career commitment: Functions, correlates, and management", *Group and Organization Studies*, *15*, 158-176.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Crutcher, B. N. (2007). "Mentoring across cultures", *Academe, 93*(4), 44-48.

Deluga, R. J. (1992). The relationship of leader-member exchanges with laissez-faire, transactional, and transformational leadership in naval environments. In K. E. Clark, M. B. Dreher, G. F., & Ash, R. A. (1990). "A comparative study of mentoring among men and women in managerial, professional, and technical positions", *Journal of Applied Psychology, 75*, 539-546. doi:10.1037//0021-9010.75.5.539

Godfrey-Smith, P. (2003). *Theory and reality: An introduction to the philosophy of science.* Chicago, IL: University of Chicago Press.

Godshalk, V.M., & Sosik, J.J. (2000). "Does mentor-protégé agreement on mentor leadership behavior influence the quality of mentoring relationships?" *Group & Organization Management*, 25 (3), 291-317.

Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.

Human Synergistics International. (2007). Management effectiveness profile system [MEPS] product information sheet. Retrieved from http://www.human-synergistics.com.au.

Loebs, S. F. (2004). "A study of the decision factors for careers in health administration", *Journal of Health Administration Education*, 21, 485–528.

Oliver, C., & Aggleton, P. (2002). "Mentoring for professional development in health promotion: A review of issues raised by recent research", *Health Education, 102*, 30-39.

Perrone, J. (2003). "Creating a mentoring culture", *Healthcare Executive, 18*(3), 84-85.

Pieper, M. H. (1981). "The obsolete scientific imperative in social work research", *Social Service Review, 55,* 371-378.

Ponterotto, J. G., & Ruckdeschel, D. E. (2007). "An overview of coefficient alpha and a reliability matrix for estimating the adequacy of internal consistency coefficients with psychological research measures", *Perceptual and Motor Skills, 105*, 997-1014. doi:10.2466/PMS.105.7.997-1014

Popper, K. R. (1983). *Realism and the aim of science* (2nd ed.)*.* Lanham, MD: Rowman & Littlefield.

Ragins, B. R. (1997). Diversified mentoring relationships in organizations: A power perspective. *Academy of Management Review, 22*, 482-521. doi:10.2307/259331

Ragins, B. R., & Cotton, J. (1999). "Mentor functions and outcomes: A comparison of men and women in formal and informal mentoring relationships", *Journal of Applied Psychology,* 84: 529-550.

Randle, J. (2003). "Bullying in the nursing profession", *Journal of Advanced Nursing, 43*, 395–401. doi:10.1046/j.1365-2648.2003.02728.x

Scandura, T. A. (1992). "Mentorship and career mobility: An empirical investigation. *Journal of Organizational Behavior, 1,* 169-174. doi:10.1002/job.4030130206

Scandura, T. A., & Schriesheim, C. A. (1994). Leader-member exchange and supervisor career mentoring: Mentoring as a complementary construct in research", *Academy of Management Journal, 37,* 1588-1602. doi:10.2307/256800

Schein, E. H. (1978). *Career dynamics*. Reading, MA.: Addison-Wesley.
Schyns, B., von Elverfeldt, A., & Felfe, J. (2008). "Is there a male advantage in the effects of feedback and leadership on leaders' occupational self-efficacy?" *Equal Opportunities International, 27*(7), 596-612.

Sosik, J. J., & Godshalk, V. M. (2000). "The role of gender in mentoring: Implications for diversified and homogenous mentoring relationships", *Journal of Vocational Behavior, 57*, 102-122.

Sosik, J. J., & Megerian, L. E. (1999). "Understanding leader emotional intelligence and performance: The role of self-other agreement on transformational leadership perceptions", *Group & Organization Management, 24*, 367-390.

Tharenou, P., & Terry, D. J. (1998). "Reliability and validity of scores on scales to measure managerial aspirations", *Educational and Psychological Measurement, 58,* 475-493. doi:10.1177/0013164498058003008

Viator, R. E., & Scandura, T. A. (1991). "A study of mentor-protégé relationships in large public accounting firms", *Accounting Horizons, 5,* 20-30.

Washington, S.R. (2011). *A study of the difference between mentor and protege perceptions of   the effectiveness of mentor management skills*. Proquest 3469314.
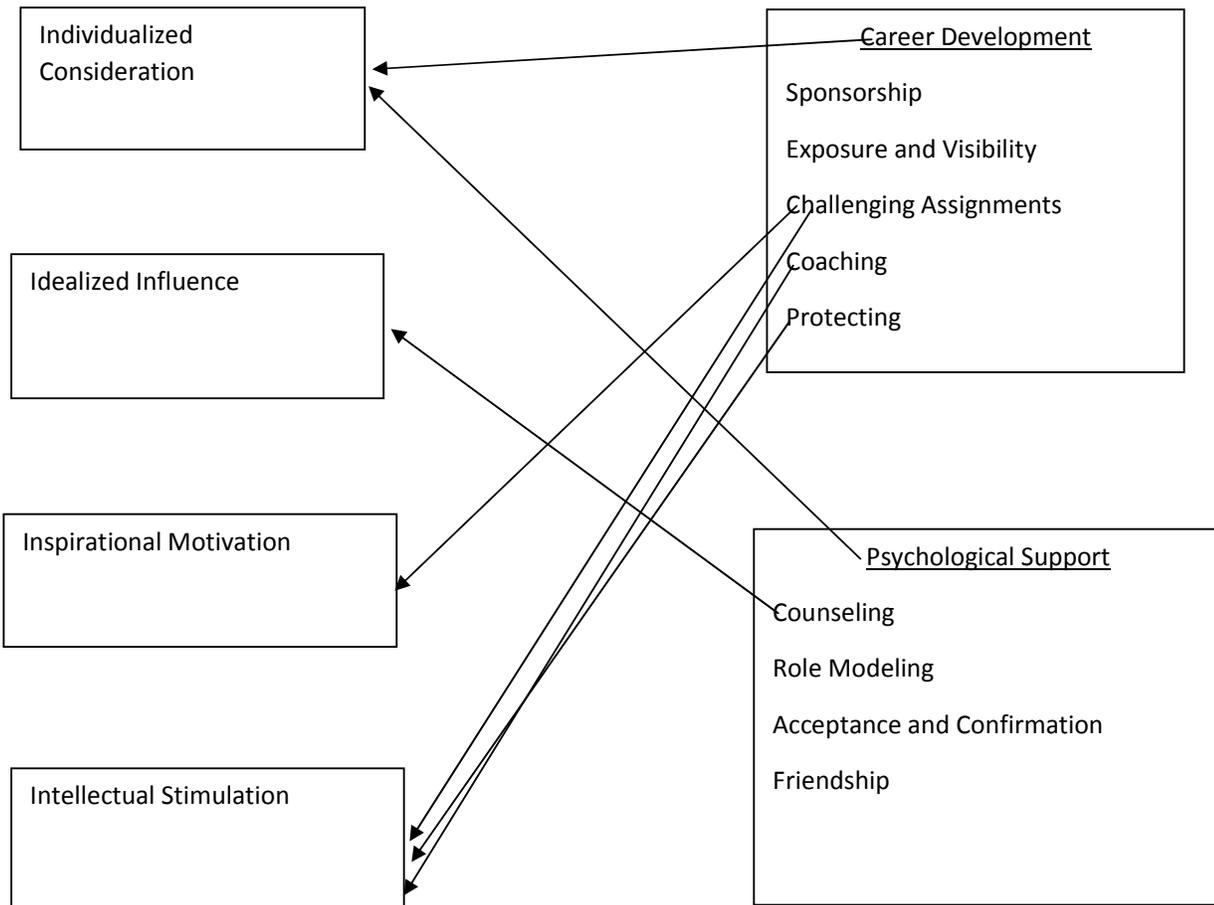
Appendix

Transformational Leadership   **Mentoring**

(Bass & Avollo, 1994)   **(Kram, 1985)**

Theoretical Links between transformational leadership and mentoring activities