A Study on Mentor-Protégé Assessments in Healthcare Industry

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Abstract

Research on mentoring has demonstrated a variety of positive effects of mentoring relationships. Mentoring provides ongoing career development, acceleration of leadership development, facilitation of organizational learning and improved retention (Perrone, 2003). There needs to be a good fit between the mentor and protégés to ensure that obstacles are overcome and mentoring is successful. Mentors and mentee protégé must be compatible (Oliver and Aggleton, 2002). This paper examines if there are specific differences between mentor and protégé assessments of the overall effectiveness of the mentoring relationship. The primary author sought the permission of Human Synergistics to use the online version of the Management Effectiveness Profile System (MEPS) questionnaire to study a convenience sample of 65 matched mentor and protégé dyads from various states within the United States.

Keywords: mentors, proteges, management effectiveness profile systems, mentoring relationships.

1. Introduction

Mentoring is an asset for preparing prospective leaders in the healthcare field. Mentoring is a formal or informal relationship between a manager and a non-manager employee within a healthcare organization setting (Kram, 1986). Mentoring is a development strategy, through which a more experienced professional is able to pass on information and training to a younger, less experienced protégé (Perrone, 2003). Mentor- protégé relationships involve a more skilled or experienced mentor who helps to advance the career of a lesser skilled protégé.

Research on mentoring has demonstrated a variety of positive effects of mentoring relationships. Mentoring provides ongoing career development, acceleration of leadership development, facilitation of organizational learning and improved retention (Perrone, 2003). Allen, Russell and Maetzke (1997) suggest mentoring promotes feelings of inclusion in the work setting. Peer relationships in healthcare result in competition and power struggles among workers, which may result in violence against vulnerable younger workers (Freshwater, 2000, McKenna, Smith, Poole and Corerdale, 2003; Randle, 2003). Mentoring reduces this horizontal violence and promotes an organizational culture in which all participants recognize the need to assist each other in achieving shared goals (Freshwater, 2000; McKenna et al., 2003, Randle, 2003).

Mentoring programs, thus can be an effective development tool for all organizations. Currently there is ongoing research on the various factors responsible for the creation of an effective and successful mentoring program. Ragins (1997) addressed how the demographic criteria of the mentor and the protégé such as race or gender affected the psychological associations formed between the mentor and the protégé. While Crutcher (2007) suggested how mentors dealing with proteges from different cultures must go beyond traditional mentoring formats to address different cultural norms and value systems. A lack of cultural awareness can lead to negative mentoring relationships. Linsky (2002) stressed the importance of personal relationships between mentor and protégé within a mentoring relationship. Godshalk and Sosik (2000) provided evidence indicating how the mentor's supervisory status may influence the association between mentors and proteges. The authors also suggested that gender similarity influenced the effectiveness of the mentoring relationship. There needs to be a good fit between the mentor and proteges to ensure that obstacles are overcome and mentoring is successful. Mentors and mentee protégé must be compatible (Oliver and Aggleton, 2002). Both of them must agree on the effectiveness of the mentoring relationship. The issue of how differences between mentors' and proteges' perceptions of mentors' management skills can impact the effectiveness of a mentoring program remains unclear. However it is vital for proteges to perceive their mentors as competent managers because these mentors not only instruct but also serve as role models. Mentors must also perceive themselves as capable managers in order to convey an aura of competence (Washington, 2011).

This paper makes a contribution in the field of mentoring by examining whether mentors and proteges had similar perceptions of the management effectiveness skill levels of the mentor and to determine the relationship between the length of the mentoring relationship and the skill level outcomes. The purpose of this paper is to explore specific differences between mentor and protégé views of the mentoring effects on the mentor's management effectiveness skill levels. The paper has been divided into four sections. Section one will cover literature on mentoring and the need for mentoring in healthcare industry. While the next two sections will deal with methodology and data analysis. The last section will consist of conclusion with suggestions for further research.

Literature Review

A mentoring relationship is a hierarchical, one-on-one relationship involving a protégé and mentor. This is an unequal helping relationship focused on assisting with the development of the protégé (Johnson and Ridley, 2004). The mentoring relationship includes the intentional investment of a mentor's time, energy and resources in a younger individual with whom a mutual affiliation is present. The mentor seeks to equip the protégé in a variety of ways to help with the development of personal or vocational aspirations and goals. It is an interpersonal relationship in which a senior or more experienced person helps a junior or inexperienced person to become familiar with the requirements of the organization, to cultivate occupational skills and to develop work-related experience (Clutterbuck, 2006).

The theoretical framework governing this study is that of the partnership model proposed by Bull et al. (2002). In the partnership model, Bull et al., (2002) suggested links form between persons active in partnerships when the intervention of the more knowledgeable partner has a direct impact on the performance of the less knowledgeable partner. The more knowledgeable partner is aware that the other person is less knowledgeable and is likely to have less experience but is willing to learn. The partners define the context of their partnership and identify desired goals. The more knowledgeable partner and the less knowledgeable partner work within the parameters. Over time, the less knowledgeable partner acquires information from the other and begins to develop his or her own skills and abilities.

Bull et al. (2002) theorized that a great deal of primary care in healthcare depends on the work experiences of those persons who are aware of the needs of the patient and of the demands of the organizational setting. In this context, a more knowledgeable partner is able to recognize that his/her skills and abilities are valuable and appreciates that the other partner wants to learn them. During the course of performing necessary duties, the more knowledgeable partner passes on the information to the other partner, both by directly addressing areas of concern and by providing supervised hands-on experience. While the partnership model initially applied to healthcare professionals who trained family members to care for elderly persons in need of immediate care, this model could also be applied to the mentoring relationship and thereby help improve leadership skills.

Healthcare is a demanding profession in which participants tend to encounter high-stress situations on a frequent basis (Clarke, Allen, Anderson, Black and Fulop, 2004).

Recruitment of new professionals into specific areas of healthcare has always been challenging. Retention of healthcare staff in a specific hospital or healthcare organization is more difficult than in the past as healthcare professionals frequently leave one healthcare employer for another employer or leave the profession altogether (Vnuk, 2005). The decision to leave a specific healthcare organization is due to bad workplace conditions, inadequate management, lack of compensation, lack of professional development and lack of personal satisfaction (Bally, 2007; Chandler, 2005; Clarke et al., 2004). Healthcare workers suffer from burnout and are unwilling or unable to perform their jobs (Maslach, 2003).

Mentoring is a strategy which can promote retention of workers in healthcare (Bally, 2007; Chandler, 2005; Clarke et al., 2004; Freshwater, 2000; McKenna et al., 2003; Randle, 2003). Mentoring has a positive effect on the culture of the healthcare organization. Bally (2007) explains there is low morale and apathy within the hospitals. Heavy workload and reduced resources lead to stress and job dissatisfaction. In these circumstances, mentoring helps protégé in recognizing that s/he has the support of an older, more experienced employee and the protégé is less likely to internalize the work-related stressors. Additionally mentoring relationships assist the protégé in identifying how best to balance a personal life with the demands of the workplace (Hezlett and Gibson, 2007).

Further there is a lack of leaders within the healthcare industry. Healthcare employees enter workplace at entry-level positions. But there is little opportunity to gain appropriate leadership experience in the field of healthcare (Loebs, 2004, Scott and Caress, 2005). The ability to gain leadership experience occurs when prospective leaders have the opportunity to observe a controlled workplace.

Mentoring thus is an important development tool within the healthcare sector. The literature abounds with reports on the benefits and advantages of mentoring for leadership roles in health care and other fields (Crutcher, 2007; Dreachslin, 2007, Dworkin and Shipani, 2007; Feldman and Bolino, 1999; Finley et al., 2007; Fregenson, 1988; Harvey and Wiese, 1998; Scandura, 1992; Scandura and Schriesheim, 1994; Scullion and Linehan, 2002; Thibodeaux and Lowe, 1996). However limited research is available on the perceptions of mentors in the healthcare field by their proteges. It is vital for proteges to perceive their mentors as competent managers because these mentors not only instruct but also serve as role models (Washington, 2011).

Methodology

Mentoring as a subject lends itself to quantitative survey research. Creswell (2003) points out a quantitative approach allows the researcher to gain knowledge that is problem-centered (pragmatism and post positivist approach). A survey is appropriate to collect data from participants in the study (Creswell, 2003). Positivism provides a theoretical framework for a quantitative study. Positivism refers to the notion that knowledge derives from observable facts. Positivists believes that "measurement could be objective, value free and theory free, the only way to reach legitimate goals of science is prediction and linear cause and effect reasoning is the only way to reach legitimate and useful conclusions about human behavior" (Bolland and Atherton, 2002: 8). In this study, the authors were aware of the need to gather knowledge related to mentoring relationships and leadership skills. This meant collecting quantitative data for statistical analysis to test the study's hypothesis.

The purpose of this study is to determine whether mentors and proteges had similar perceptions of the managerial effectiveness skill level of the mentor and to determine the relationship between length of the mentoring relationship and skill level outcomes. Literature findings indicate length of a mentoring relationship may affect outcomes (Mentor, 2010). The objective is to explore specific differences between mentor and protégé views of mentoring effects on the mentor's management effectiveness skill levels in three areas:

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

The assessment tool, of Management Effectiveness Profile System (MEPS), a standardized survey 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 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 managers' behaviors related to performance. 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).

Findings And Discussion

Three research questions were generated to understand mentors and protégé perceptions of the overall effectiveness of the mentoring relationship.

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' management 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' management 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' management 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' management 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' management 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 management 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' management 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' management effectiveness in the area of personal skills, after adjusting the personal skills scores for length of time in the mentoring relationship.

The research questions generated one independent variable (group: mentor versus protégé), three dependent variables (management skills, task skills, interpersonal skills, personal skills) and one covariate (length of time in mentoring relationship). Length of time in mentoring relationship applied to adjustment of dependent variable scores as this factor may influence perceptions of effectiveness. 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' management skills 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 managerial 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 management 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, α = .95, while the reliability for the protégé task skills scale was moderate to good, α = .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***

					Range		
Variable	*n*	*M*	*SD*	□	Potential	Actual	Skew
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 1 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.

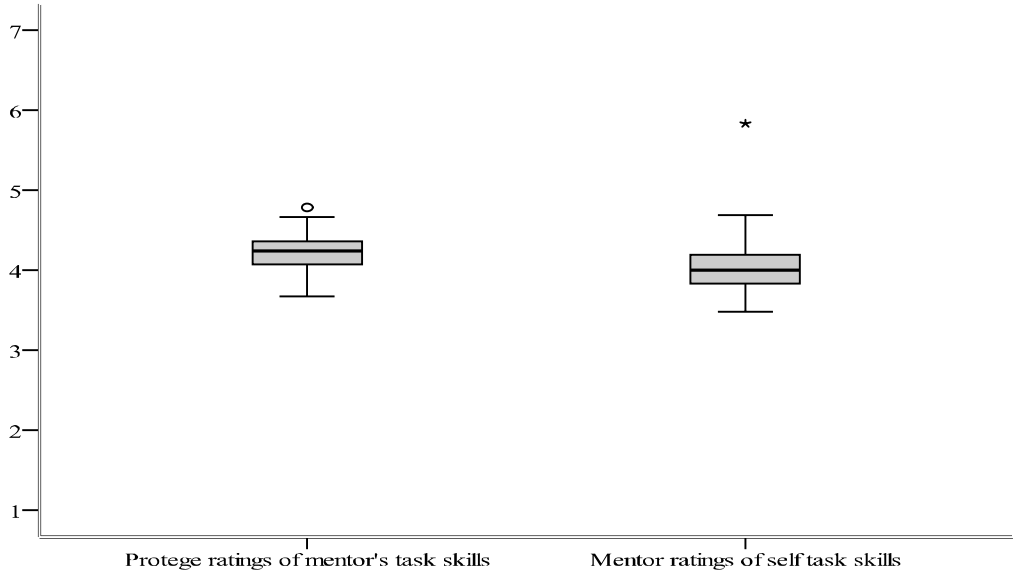

Figure 1. Box plots representing the distributional characteristics of the mentors' self-ratings and the protégés' ratings of the mentors' task skills.

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 2 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.

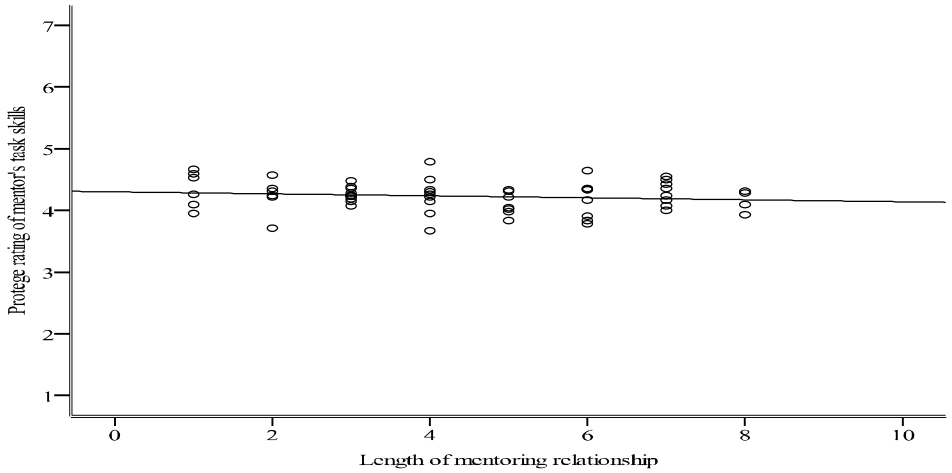

Figure 2. Scatter plot illustrating the relationship between protégés' length of time in the mentoring relationship and their task skills ratings of their mentors. Covariate is not related therefore it wasn't further analyzed in the length of the relationship. The length of time in the relationship was 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, $t(64) = 3.78$, $p < .001$.

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

Research Question 2: The second research question asked if a significant difference between mentors' self-perceptions and protégés' perceptions of their mentor's management 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, $\alpha = .93$, while the reliability for the protégé task skills scale was good, $\alpha = .70$ (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 2: ***Paired Samples t test Results for Task Skills***

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

Note. CI = confidence interval.

Table 3 ***Psychometric Properties of the Interpersonal Skills Scale***

					Range		
Variable	*n*	*M*	*SD*	□	Potential	Actual	Skew
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 3 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.

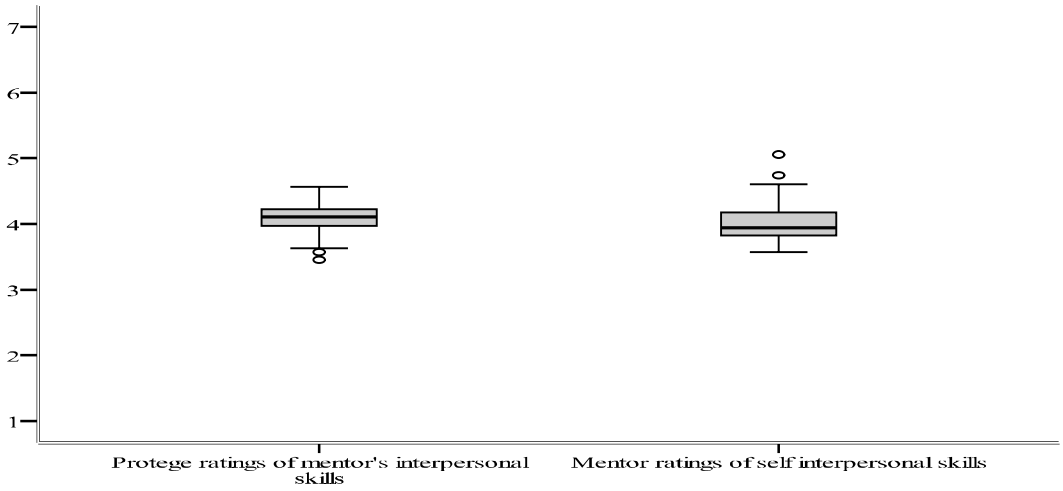

Figure 3. Box plots representing the distributional characteristics of the mentors' self-ratings and the protégés' ratings of the mentors' interpersonal skills.

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 4 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.

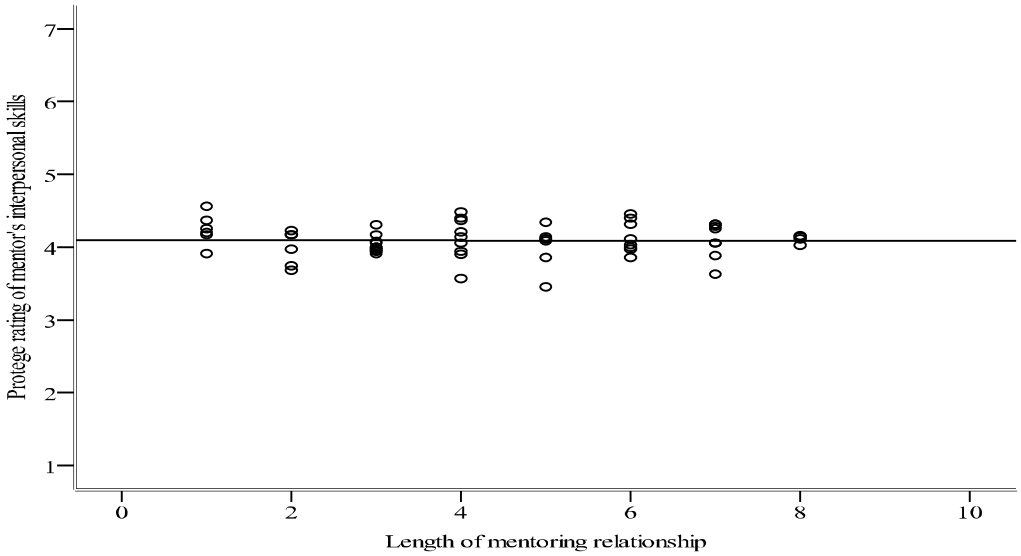

Figure 4. Scatter plot illustrating the relationship between protégés length of time in the mentoring relationship and their interpersonal skills ratings of their mentors.

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 management 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 management 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 5: ***Psychometric Properties of the Personal Skills Scale***

					Range		
Variable	*n*	*M*	*SD*	□	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 5 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.

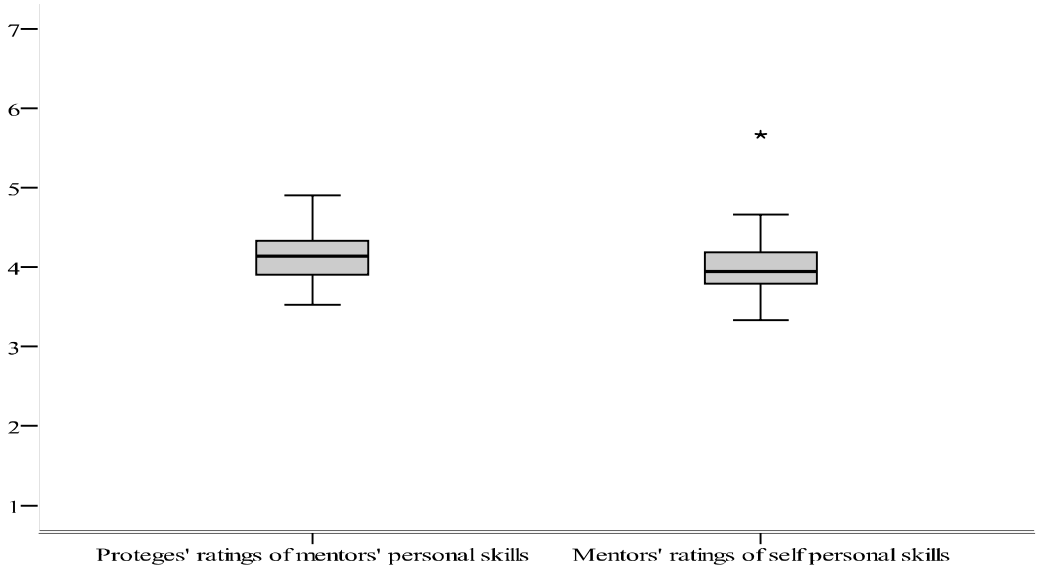

Figure 5. Box plots representing the distributional characteristics of the mentors' self-ratings and the protégés' ratings of the mentors' personal skills.

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 6 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.

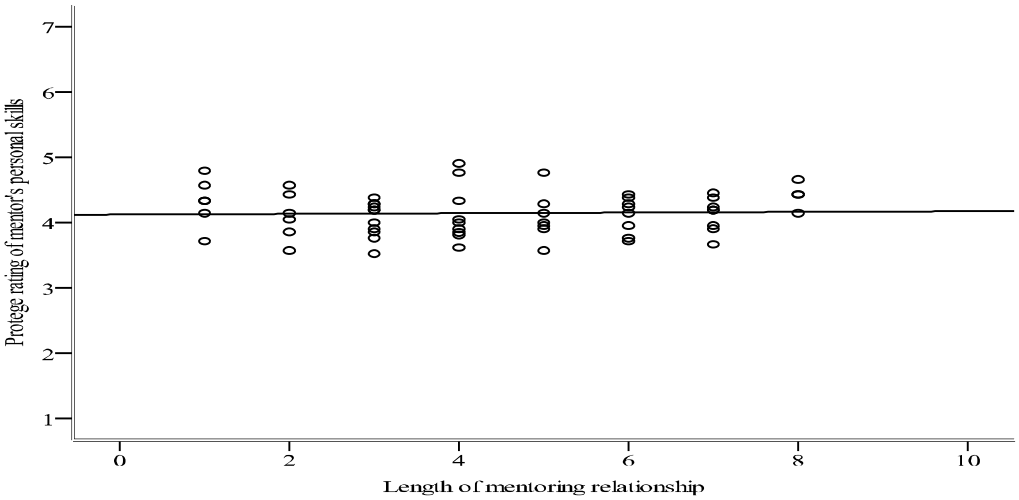

Figure 6. Scatter plot illustrating the relationship between protégés length of time in the mentoring relationship and their personal skills ratings of their mentors

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 6 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 6: ***Paired Samples t Test Results for Personal Skills***

		95% CI				
Personal skills	Mean difference	Lower	Upper	*t*	*df*	*p*
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 management 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 of management effectiveness, which included task skills, interpersonal skills, and personal skills. This also means that protégés saw leadership behaviors in terms of task, interpersonal, and personal skill-sets to be the foundation of management effectiveness. 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 on management effectiveness, which included task skills, interpersonal skills and personal skills supported these implications. 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

To summarize the empirical analysis allows a complete understanding of the mentoring relationship. The empirical analysis revealed that proteges rated their mentors statistically significantly higher than the mentors rated themselves on management effectiveness, which included task skills, interpersonal skills and personal skills. The largest differences was found for task skills followed personal skills and interpersonal skills. The findings also revealed the fact that the length of the mentoring relationship was not a factor in outcomes. There was no significant relationship between length of mentoring relationship and proteges' ratings of their mentors' task skills.

Reasons for 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 positions (Schyns, von Elverfeldt and Felfe, 2008). Another explanation might be that these CEOs/managers were not trained to be leaders but rather worked their way up the ranks and therefore had a limited option of their abilities. Outcomes may also have been due to the type of clinics that the mentors/proteges came from since some clinics are typically very hectic. Nidiffer (2009) pointed out that women university presidents presented usually have very high opinions of themselves. Therefore the type of organization or leadership position may have affected outcomes. In addition, leadership characteristics and style could also have affected outcomes (Laing, Taylor and Williams, 2002).

The study also suffered from the limitations of a small sample. The sample in this study included only 65 matched mentor and protégé dyads from various states and organizations who had completed the MPES survey. Such a sample may not represent different types of populations and mentoring relationships. This means that while findings for this study were that mentors and protégés differed in their perspectives of mentor's skills, this may not be the case across all mentoring relationships. Specific mentoring and situational factors and individual characteristics of the mentor or protégé that may have affected outcomes were not controlled or assessed. Further MEPS did not allow a detailed understanding of the findings.

To overcome the above limitations it is recommended that future studies include a larger sample from randomly selected multiple geographic locations. It is also recommended that multiple instruments be used to assess the mentoring relationship thereby allowing investigation of different variables, reasons for outcomes and other related factors. The initial assessment could gather qualitative and quantitative information. The second assessment would allow for confirmation of findings and conclusions and gathering of further explanations of data. This could allow a more complete understanding of the mentoring relationship and allow investigation of how cultural factors, gender, specific individual and organizational issues could impact the mentoring outcomes and protégé and mentor perceptions of the relationship.

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