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# RELATIONSHIPS AMONG LEADER-MEMBER EXCHANGE, ORGANIZATIONAL CITIZENSHIP BEHAVIOR, ORGANIZATIONAL COMMITMENT, GENDER, AND DYADIC DURATION IN A REHABILITATION ORGANIZATION

By

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A Dissertation Submitted in Partial Fulfillment for the Doctor of Philosophy Degree

Rehabilitation Institute In the Graduate School Southern Illinois University Carbondale August, 2009

### **DISSERTATION APPROVAL**

# RELATIONSHIPS AMONG LEADER-MEMBER EXCHANGE, ORGANIZATIONAL CITIZENSHIP BEHAVIOR, ORGANIZATIONAL COMMITMENT, GENDER, AND DYADIC DURATION IN A REHABILITATION ORGANIZATION

By

James L. Soldner

A Dissertation Submitted in Partial

Fulfillment of the Requirements

for the Degree of

Doctor of Philosophy

in the field of Rehabilitation

Approved by:

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Graduate School Southern Illinois University Carbondale May, 15<sup>th</sup> 2009

#### AN ABSTRACT OF THE DISSERTATION OF

James L. Soldner, for the Doctor of Philosophy degree in Rehabilitation, presented on May, 15<sup>th</sup> 2009, at Southern Illinois University Carbondale.

TITLE: RELATIONSHIPS AMONG LEADER-MEMBER EXCHANGE, ORGANIZATIONAL CITIZENSHIP BEHAVIOR, ORGANIZATIONAL COMMITMENT, GENDER, AND DYADIC DURATION IN A REHABILITATION ORGANIZATION

MAJOR PROFESSOR: Dr. William Crimando

This study was an investigation of the relationship between subordinates' perceptions of the quality of the leader-member exchange (LMX) relationship and their willingness to engage in organizational citizenship behavior (OCB) and organizational commitment (OC). Differences in subordinates' perceptions of the quality of the LMX with their supervisor according to the gender of the supervisor compared to the employee (same sex vs. different sex) and dyadic duration of the LMX were also investigated. The possible moderation of dyadic duration on the relationship between subordinates' perception of the quality of the LMX and their willingness to engage in OCB and OC were also investigated. Lastly, the possible moderation of gender on the relationship between subordinates' perception of the quality of the LMX and their willingness to engage in OCB and OC were also investigated. This study surveyed direct service subordinate staff currently employed at a large rehabilitation organization in the Midwest. Results of research questions (RQ) one through eight are as follows: No significant correlation, r = .15, p = .35 for RQ1, significant correlation for RQ2, r = .38, p = .01, no significant correlation, r = .14, p = .38, for RQ3, no significant correlation, r = .30, p = .38.05 for RQ4, RQ5 model one was not significant,  $R^2 = .10$ ,  $F_{(2.38)} = 2.21$ , p = .12, model two was significant,  $R^2 = .19$ ,  $F_{(3,37)} = 2.86$ , p = .05, RQ6 model one was significant,  $R^2$ 

= .26,  $F_{(2,38)}$  = 7.59, p = .002, model two was significant,  $R^2$  = .34,  $F_{(3,37)}$  = 6.34, p = .001, RQ7 model one was not significant,  $R^2$  = .10,  $F_{(2,38)}$  = 2.21, p = .12, model two was not significant,  $R^2$  = .16,  $F_{(3,37)}$  = 2.31, p = .09, and RQ8 model one was significant,  $R^2$  = .26,  $F_{(2,38)}$  = 7.59, p = .002, model two was significant,  $R^2$  = .32,  $F_{(3,37)}$  = 5.98, p = .002. A summary of results and limitations and delimitations of the study are discussed, as well as implications and directions for future research.

# **DEDICATION**

Simply to all of the individuals throughout my life who have helped me realize my potential and accomplish my goals. Thank you!

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I would like to thank Dr. William Crimando for all of his helpful assistance with the preparation and completion of this dissertation. It would not have been possible without you. I could not have asked for a more knowledgeable, responsive, and caring dissertation chair. Your incredible patience and understanding nature with my numerous and often tedious questions is greatly appreciated! I would also like to sincerely thank my family, especially my parents for making an endeavor of this nature possible. The guidance and support of my immediate and extended family over the course of academic career and life has been, and will continue to be, valued and critically important. In addition to my family, my friends, both old and new and near and far, have also been a huge source of encouragement and motivation. In particular, my best friend, Jason Caldwell, has helped instill in me a strong work ethic and never give up attitude, something that I have attempted to infuse into every aspect of my life. Thank you Jason for helping me to accomplish my goals!

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#### CHAPTER 1

#### INTRODUCTION

## Background of the Problem

Leadership is a critically important element impacting both organizational and individual success. The influence of leadership is evident in the military, politics, government, academia, and virtually every profit or nonprofit organization (Truckenbrodt, 2000). Leadership has historically been one of the most extensively researched constructs in the behavioral sciences (Milner, Katz, Fisher, & Notrica, 2007). Over the past three decades, a growing body of leadership research has emerged focusing on the dyadic relationship between supervisors and subordinates, known as leadermember exchange (LMX) theory (Stringer, 2006). Research on LMX theory, formerly referred to as the vertical-dyad linkage model, began in the early 1970s by George Graen and his colleagues as an alternative theoretical approach to understanding leadership at work (Graen & Cashman, 1975). Prior to the introduction of LMX theory, most leadership theorists assumed the existence of a "general leadership style" that focused exclusively on the role of the leader in the leadership process. This general leadership style was often considered ambiguous, out-dated, and ineffective since the primary focus was on a particular leader who displayed the same set of behaviors towards all of their subordinates (Milner, Katz, Fisher, & Notrica, 2007). On the contrary, LMX theory takes into mutual consideration the behavior of both the supervisor and subordinate in the leadership dynamic (Martin, Thomas, Charles, Epitropaki, & McNamara, 2005).

The central focus of LMX theory is the individual relationship and interaction (a dyadic exchange) between a supervisor (termed 'leaders') and each of their subordinates

(termed 'members'). The LMX relationship between a supervisor and subordinate has been shown to develop quickly and remain relatively stable over time (Graen & Cashman, 1975; Gerstner & Day, 1997). The LMX theory purports that leaders interact with their subordinates at varying levels dependent on whether the subordinates are part of the "in-group" (high quality relationship) or "out-group" (low quality relationship). Members of the "in-group" are often given additional responsibility, autonomy, increased communication with their supervisors, and trust in exchange for organizational commitment and performance. High quality LMX relationships have been shown to result in higher levels of subordinate satisfaction and performance (Anseel & Lievens, 2007; Beehr et al., 2006; Stringer, 2006; Mardanov, Heischmidt, & Henson, 2008), lower levels of subordinate stress (Harris & Kacmar, 2006), and subordinate absenteeism (Dierendonck, LeBlanc, & Breukelen, 2001). The "out-group" members do not experience the same amount of responsibility, autonomy, communication, and trust with their supervisors. Inversely, low quality LMX relationships have been shown to result in higher levels of supervisor control and directives, lower levels of subordinate satisfaction, higher levels of subordinate turnover, and less desired assignments (Graen & Cashman, 1975; Varma & Stroh, 2001).

A unique feature of the LMX model is its emphasis on the different ways in which supervisors behave towards different subordinates, as well as the quality of these relationships. Essentially, no two dyadic relationships between supervisors and subordinates are the same (Wayne, Liden, & Sparrowe, 1994). The LMX theory purports that supervisors do not interact with subordinates uniformly because supervisors are often constrained by limited time and resources. Due to these constraints, supervisors must

allocate their work behaviors to a limited number of subordinates, often those subordinates in high quality LMX relationships with their supervisors. Those subordinates in low quality LMX relationships are often allocated less time and resources from their supervisors.

Since its origination in the early 1970s, LMX theory has been extensively researched along with various organizational outcomes (i.e., job satisfaction, burnout, turnover, organizational citizenship behavior, and organizational commitment) in a variety of organizational settings in an effort to promote organizational success (Hopkins, 2002; Sias, 2005; Truckenbrodt, 2000; Vecchio, 1998). Organizational settings in which LMX research has been conducted include banks (Vecchio, 1998), college athletic departments (Sagas & Cunningham, 2004), hospitals (Dunegan, Uhl-Bien, & Duchon, 2002), state lottery centers (Harris & Kacmar, 2005), public libraries (Green, Anderson, & Shivers, 1996), fire stations (Stringer, 2006), universities (Epitropaki & Martin, 1999), and electrical companies (Harris & Kacmar, 2005). Surprisingly, very little LMX research has been conducted in rehabilitation organizations. This is troubling considering empirical evidence for LMX to predict a variety of organizational outcomes considered prevalent in many rehabilitation organizations, including turnover (Barrett, Riggar, Flowers, Crimando, & Bailey, 1997), burnout and job satisfaction (Capella & Andrew, 2004; Kirk-Brown & Wallace, 2004; Packard & Kauppi, 1999; Randolph, 2005; Riggar, Godley, & Hafer, 1984; Wittig, Tilton-Weaver, Patry, & Mateer, 2003) and job performance (Parsons, Reid, & Crow, 2003). Past LMX research has found a positive relationship between LMX and various organizational outcomes, including levels of job satisfaction (Stringer, 2006), turnover (Vecchio, 1998), levels of stress (Harris & Kacmar, 2005), amount and quality of work-related information employees receive (Sias, 2005), organization citizenship behavior (Wayne & Green, 1993), organizational commitment (Tierney, Bauer, & Potter, 2002), and subordinate feedback-seeking behaviors (Lee, Park, Lee, & Lee, 2007).

To date, only three LMX studies have been conducted in rehabilitation organizations, and these focused specifically on the relationship between and LMX and burnout (Larson & Gouwens, 2008), LMX and organizational citizenship behavior (Hopkins, 2002), and LMX and subordinate disability status (Colella & Varma, 2001). No other LMX studies have been published in rehabilitation focusing on the relationship between LMX and other organizational outcomes or the relationship between LMX and personal characteristics of either a supervisor or subordinate, other than subordinates' disability status. Therefore, the purpose of the present study was to investigate the relationship between LMX and two participant characteristics: organizational citizenship behavior, and organizational commitment, as well as the relationship between LMX and gender and LMX and dyadic duration in a rehabilitation organization.

A review of the LMX research in rehabilitation organizations included a study conducted by Larson and Gouwens (2008) in an urban psychiatric rehabilitation organization that examined the relationship between LMX and burnout within psychiatric rehabilitation workers. This study showed that LMX scores were significantly and negatively correlated with burnout scores and suggested LMX relationships may positively influence burnout. Another LMX study in rehabilitation was conducted with direct service workers from five urban and rural, public and private nonprofit child and family service agencies (Hopkins, 2002). This study examined how subordinate

perception of LMX and other organizational variables were related to worker's organizational citizenship behavior. A comprehensive search of published LMX research uncovered no other LMX studies having been conducted in a rehabilitation organization.

Two participant characteristics and their relationship to LMX will be targeted in the present study: organizational citizenship behavior (OCB) and organizational commitment (OC). OCB, also termed extra-role behavior, is defined as individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, the aggregate of which promotes the effective functioning of the organization (Lapierre, & Hackett, 2007; Organ, 1998). In organizational settings, OCB has been found to be negatively related to burnout (Chiu & Tsai, 2006) and positively related to job security (Feather & Rauter, 2004) and promotion (Allen, 2006). In rehabilitation organizations, OCB has been shown to be related to high levels of organizational effectiveness and customer/client satisfaction (Hopkins, 2002). A number of studies have found a positive relationship between high quality LMX and subordinates' willingness to engage in OCB. For example, Settoon, Bennett, and Liden (1996) found that subordinates in high quality LMX relationships with their supervisors sought out extra-role situations in the form of OCB to the supervisor.

While OCB studies have been conducted in a variety of organizations including a hospital (Wayne & Green, 1993), utility company (Allen, 2006), university classroom (Farrell & Finkelstein, 2007), and a military base (Deluga, 1995), only one published study was found that originated in a rehabilitation organization. Hopkins (2002) examined the effects of LMX and various organizational outcomes on child and family service employees' willingness to engage in OCB. Survey data showed employees'

reports of organizational support, job performance, and professional education were positively related to employees' OCB. The author discussed the need for future research to further examine the link between LMX and OCB and service quality in rehabilitation organizations, a particular area of research interest for the present study.

Organizational commitment (OC) is defined as company loyalty exhibited by employees. Organizational commitment is also considered the relative strength of an individual's identification with and involvement in the organization in terms of values and goals (Kent & Chelladurai, 2001). Committed employees have shown a willingness to exert considerable effort on behalf of the organization, and a strong desire to remain in the organization. Interestingly, OC has been found to be a more stable and enduring measure of employee attitude than other well established constructs such as job satisfaction (Sias, 2005).

Antecedents of OC include demographics such as age and gender. Older employees have been noted to be more committed to their organization considering they have a greater investment and history with the organization than younger employees (Dunham, Grube, Castaneda, 1994). Generally, women have reported more commitment to their organization than have men (Mathieu & Zajac, 1990). Bellman, Forster, Still, and Cooper (2003) found that organizational commitment as a stress outcome was significantly different across genders, with males reporting significantly lower commitment. In this study, males were found to have less organizational commitment because they perceived higher levels of need-for-recognition pressure. Other evidence has shown women to be more committed to their organizations based on different values and ethical views than men. For example, women have been shown to be more

committed to their organizations as evidenced by their greater concern with doing tasks well, promoting harmonious work relationships, and adhering to work rules than men (Shapira-Lishchinsky, 2007). Other antecedents to OC include LMX (Kent & Chelladurai) and distributive justice (perceived fairness or equity in the amount and type of rewards organizational members receive (Folger & Konovsky, 1989). Desired consequences of OC include low turnover, absenteeism, intent to quit, and high job performance, satisfaction, and involvement (Allen, 1996; Vandenberg & Lance, 1992). Organizational commitment is considered one of the most significant variables in the organizational behavior literature to investigate the role of attachment and loyalty among the employees of an organization.

While OC studies have been conducted in a financial services organization (Martin et al., 2005), a Master's level management class (Tierney et al., 2002), and a university athletic department (Kent & Chelladurai, 2001), only two published OC studies were conducted in a rehabilitation organization. In one study, Jaskyte (2003) examined the relationship between employees at all levels of a rehabilitation organization and their perceptions of organizational arrangements, job characteristics, leadership behavior and job satisfaction and commitment. Results showed that rehabilitation employees' perceptions of leadership behavior were important predictors of job satisfaction and commitment. Mannheim and Papo (2000) conducted a study among professional and nonprofessional occupational welfare workers to investigate the relationship between various participant characteristics and organizational outcomes, including OC. Results from this study showed that professional occupational welfare workers were less committed to the organization than their nonprofessional counterparts.

The potential for OC to predict a number of desirable organizational outcomes, especially those considered prevalent in many rehabilitation organizations, is well established. The existence of OC is considered especially important in rehabilitation organizations in an effort to help promote individual and organizational success, especially quality service delivery (Jaskyte, 2003). Considering the potential for both OCB and OC in rehabilitation organizations and their documented relationship with LMX, these subordinate characteristics were considered particularly important variables to target for the present study.

A number of other LMX studies have focused on how leader and member characteristics such as gender (Milner et al., 2007), socio-economic status (Duchon, Green, & Taber, 1986), and age and education (Tsui & O'Reilly, 1989) may influence the leader-member relationship. In particular, the relationship between gender and LMX has been well documented. Research has shown that supervisors with same-sex subordinates are likely to develop higher quality LMXs than those supervisors of the opposite sex (Milner et al.; Wayne, Liden, & Sparrow, 1994). Further, Lee (1999) found that perceived quality of LMX affects subordinates' expectations in overall communication patterns with the supervisors depending on their gender.

Another subordinate characteristic shown to predict LMX quality is job tenure, more specifically for the purposes of LMX research, the length of time that a subordinate has been supervised by the same person, termed dyadic duration. Duarte, Goodson, and Klich (1994) conducted an LMX and dyadic duration study among subordinates working in an industrial company and found a positive relationship between length of dyadic duration and subordinate performance. In another LMX and dyadic duration study,

Mossholder, Niebuhr, and Norris (1990) found that performance, LMX quality, and dyadic duration interactively influenced performance ratings. In general, LMX research has shown that the longer a subordinate works for the same supervisor, the less impact the supervisors' leadership behavior has on performance (Vecchio, 1998). For the present study, the relationship between LMX and the subordinate characteristics gender and dyadic duration will also be investigated.

Previous LMX research has demonstrated empirical evidence for the relationship between subordinates' perceptions of the LMX relationship with their supervisor and their willingness to engage in OCB and OC. In addition, the relationship between subordinates' perceptions of the LMX relationship with their supervisor and the gender of the supervisors and subordinates and dyadic duration of the LMX relationship has also been shown. Therefore, it seems plausible that dyadic duration and gender, respectively, will moderate the relationship between subordinates' perceptions of the quality of the LMX with their supervisor and their willingness to engage in OCB and OC. Furthermore, considering the established positive relationship between LMX and both OCB and OC and LMX and dyadic duration and gender, independent of one another, it seems likely that both dyadic duration and gender would moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in OCB and OC.

#### Significance of the Problem

Empirical evidence for the relationship between LMX and a variety of important individual and organizational outcomes is well established. Based on role theory, LMX postulates that dyadic relationships and work roles develop over time through a series of

exchanges between leaders and members (Scandura & Graen, 1984). These exchanges result in supervisors treating each of their subordinates differently. According to LMX theory, some dyadic relationships evolve into high quality exchanges while others are a more formal relationship between leader and member. Diesesch and Liden (1986) devised an assessment of LMX quality based on the fundamental concepts of mutuality, along with three different dimensions, namely, perceived contribution, loyalty and affect. Leaders and members are said to contribute equally to the relationship, although often the leader initiates the exchange (Graen & Scaddura, 1987). Essentially, these dyadic relationships emerge on the basis of how effectively subordinates work with their leader and how well their leaders work with them.

The importance of the LMX relationship for both leader and member is well documented in the LMX literature. Subordinates in high quality LMX relationships (i.e., in-group members) are often given expanded work responsibilities and tend to engage in more OCBs, also known as extra-role behavior. These extra role behaviors are considered discretionary work behaviors that collectively promote organizational effectiveness. Past LMX research has shown many positive individual outcomes for high quality LMX subordinates, including greater amounts of support, communication in the form of performance feedback, responsibility and access to formal and informal rewards, as well as higher levels of job satisfaction (Stringer, 2006), stronger performance appraisal ratings and lower levels of stress (Harris & Kacmar, 2005). Additionally, high quality LMX subordinates are found to have stronger work-related emotional attachments and high quality trusting relationships with their supervisors. When supervisors and subordinates have high quality LMX relationships, a mutual trust is shared and overall

productivity and performance is enhanced. Leaders that can effectively create and sustain high quality LMX relationships minimize turnover, increase job satisfaction, performance, organizational commitment and citizenship behavior and provide more support and attention to their subordinates (Burton, Sablynski, & Sekuguchi, 2008). These organizational outcomes are critically important in any organization.

Conversely, subordinates in low quality LMX relationships (i.e., out-group members) have limited exchanges with their supervisor, particularly those expected under a traditional employment contract. Subordinates in low quality LMX relationships have low degrees of mutual trust, respect, liking and reciprocal influence or obligation with their supervisor. These subordinates have less negotiating latitude and lower status than subordinates in in-group relationships (Schyns, 2006). Out-group subordinates often perceive more wage and work pace inequity and often perform their work only according to their job description (Vecchio, Griffeth, & Hom, 1986). Out-group members are relatively distant, have low OC and are often restricted to formal methods of communication with the supervisor. In addition, LMX research has shown subordinates in low quality LMX relationships have higher rates of turnover and burnout and lower levels of job performance and satisfaction (Burton et al., 2008). Collectively, the nature of the LMX relationship can have a major impact on overall individual and organizational success.

#### Purpose of the Study

The purpose of the present study was to investigate the relationship between LMX and two participant characteristics: organizational citizenship behavior, and organizational commitment, as well as the relationship between LMX and gender and

LMX and dyadic duration in a rehabilitation organization. Additionally, the present study included an investigation of the quality of the LMX relationship that subordinates have with their direct supervisor. Furthermore, the relationship between LMX, OCB, and OC obtained from survey data and gender and dyadic duration information derived from demographic data, respectively, was obtained from subordinate staff currently employed at a large rehabilitation organization in the Midwest. Based on these assumptions, the following research questions (RQ) and hypotheses for the present study were developed.

## **Research Questions**

- 1) Is there a relationship between subordinates' perceptions of the quality of the leader-member relationship (LMX) and their willingness to engage in organizational citizenship behavior?
- 2) Is there a relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?
- 3) Do subordinates' perceptions of the quality of the LMX with the supervisor differ according to the gender of the supervisors and subordinates (male v female; samesex v different sex)?
- 4) Are subordinates' perceptions of the quality of the LMX with the supervisor related to dyadic duration of the LMX?
- 5) Does dyadic duration moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in organizational citizenship behavior?
- 6) Does dyadic duration moderate the relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?

- 7) Does gender moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in organizational citizenship behavior?
- 8) Does gender moderate the relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?

# Hypotheses

- 1) Subordinates' LMX will be positively related to their willingness to engage in organizational citizenship behavior.
- 2) Subordinates' LMX will be positively related to their organizational commitment.
- 3) Subordinates' perceptions of the quality of the LMX relationship with the supervisor will differ according to the gender of the supervisors (male v female; same-sex v different sex).
- 4) Subordinates' perceptions of the quality of the LMX relationship with the supervisor will be positively related to dyadic duration of the relationship.
- 5) Dyadic duration will moderate the relationship between subordinates' LMX and their willingness to engage in organizational citizenship behavior.
- 6) Dyadic duration will moderate the relationship between subordinates' LMX and their organizational commitment.
- 7) Gender will moderate the relationship between subordinates' LMX and their willingness to engage in organizational citizenship behavior.
- 8) Gender will moderate the relationship between subordinates' LMX and their organizational commitment.

#### **Definitions of Terms**

*Burnout:* A severe psychological and physical condition that occurs in response to prolonged stress at work. Burnout has been shown to be linked to negative individual and organizational outcomes including, increased turnover intentions, reduced job performance, and increased operating costs (Chiu & Tsai, 2006).

Dyadic Duration: The length of time that a subordinate has been supervised by the same person. Dyadic duration reflects a temporal quality of the leader-member relationship (Mossholder et al., & 1990).

*Leader:* A term used within the LMX literature to describe the supervisor or manager of an organization (Milner et al., 2007).

Leader-Member Exchange Theory (LMX): A particular leadership theory that focuses on the dyadic relationship between a supervisor (leader) and each of their subordinates (members). LMX, here, is operationally defined as a score on the Team Leader-Member Exchange (LMX-SLX) Scale. The LMX-SLX measures the quality of the LMX relationship between a supervisor and his or her direct subordinate with ten sensitive questions The LMX-SLX measures three dimensions of leader-member relationships: respect, trust, and obligation. Each item of the LMX-SLX is measured on a Likert scale (1-5) indicating the degree to which an employee thinks the item is true. All items are positively worded with higher scores representing higher levels of leader-member exchange. The LMX-SLX contains no reverse scored items.

*Members:* A term used within the LMX literature to describe subordinate staff employed under the supervision of a direct supervisor (leader) (Milner et al., 2007).

Organizational Citizenship Behavior (OCB): Work behavior that is discretionary and not

directly or explicitly recognized or expected of the employee. In the aggregate, OCB promotes the effective functioning of an organization in terms of the quantity and quality of both individual and group work (Organ, 1988). The operational definition of OCB here, is a score on the *Organizational Citizenship Behavior Scale (OCBS)*. The OCBS scale measures two categories of subordinate OCB, altruism and compliance. The OCBS includes 16 items measured on a five-point Likert scale.

Organizational Commitment: An attitude of company loyalty exhibited by employees within an organization. Organizational commitment is also described as the relative strength of an individual's identification with and involvement in the organization in terms of values and goals (Allen, 1996). For this study, it is operationally defined as a score on the Organizational Commitment Questionnaire (OCQ). The OCQ measures the consistency between respondent and organization goals and the respondent's willingness to work for the good of the organization. The OCQ includes nine items on a seven-point Likert scale.

Person-Environment Fit (P-E fit): A theory of P-E fit is broadly defined as congruence between an individual and a work environment that occurs when their characteristics are well matched (Blau, 1987). The P-E fit theory proposes that there are characteristics of work environments that have the potential to be congruent with the characteristics of individuals, often resulting in a strong "fit" or "misfit" between individuals and organizations.

Subordinate: A term used within the LMX literature to describe the "member" in a supervisor-subordinate dyad. A subordinate in an organization is under the direct supervision of a supervisor or manager (Graen, & Cashman, 1975).

Supervisor: A term used in the LMX literature to describe the "leader" of an organization. The supervisor's responsibility is to manage or supervise subordinate staff members (Graen, & Cashman, 1975).

#### Limitations and Delimitations

The present study was limited to a correlation design, considering survey data was solely used for data collection and analysis purposes. From the survey data, relationships between the variables were shown but no direct causation can be shown between the variables. Another limitation of the present study related to the survey data collected with direct service subordinates currently employed at one rehabilitation organization located in the Midwest. It is possible that different results would have been found if a similar study was conducted with direct service subordinates employed at a different rehabilitation organization (i.e., psychiatric rehabilitation and substance use disorder rehabilitation) in a different part of the country.

Another limitation of the present study was the unexplained random variance involving the effects of the amount of contact (e.g., in person or via phone/email) between a particular subordinate and their respective direct supervisor. For example, it was possible that a subordinate misperceived themselves to be trusted and in a high quality LMX relationship with their direct supervisor because of their infrequent contact and perceived responsibility and autonomy. On the contrary, another subordinate with very infrequent contact with the same direct supervisor may have inaccurately perceived that they are mistrusted and in a low quality LMX relationship and as a result, the supervisor did not want to be around that particular subordinate as often. It was possible that two or more subordinates who had worked for the same direct supervisor for the

same amount of time could have experienced much less frequent contact due to nonoverlapping work schedules. Also, the present study did not use comparison groups of similar direct service subordinate staff working in other similar work-site locations within the same rehabilitation organization or other rehabilitation organizations all together.

Also, the present study did not take into consideration other potentially relevant demographic variables, such as ethnicity, and their relationship with the existing variables included as part of the present study. The importance and relevance of multicultural issues (i.e., ethnicity of research participants and their direct supervisor for the purposes of the present study) to be considered in contemporary rehabilitation research is well documented in the rehabilitation literature (Middleton et al., 2000). In particular, there has been both an increasing need and demand for multicultural rehabilitation competencies and standards to be infused into rehabilitation counseling and rehabilitation education programs, as well as professional rehabilitation organizations, in general. For these reasons, additional variables, such as ethnicity, could have been an important demographic and antecedent variable used to account for the LMX relationship between research participants and direct supervisors in the present study. Consideration of the ethnic backgrounds of both research participants and their direct supervisors could have also been useful to determine other, equally relevant information impacting the relationship between LMX and the additional variables included in the present study.

Although not taken into consideration for the present study, there is considerable evidence of a strong relationship between person-environment fit (P-E fit) and various organizational variables shown to promote organization effectiveness. A theory of P-E fit was originated by Holland (1973); it is broadly defined as congruence between an

individual and a work environment that occurs when their characteristics are well matched. Essentially, the P-E fit theory proposes that there are characteristics of work environments that have the potential to be congruent with the characteristics of individuals, often resulting in a strong "fit" or "misfit" between individuals and organizations (Tansey et al., 2004). The construct of P-E fit originates from structural contingency theory, which posits that organizational outcomes (i.e., organizational citizenship behavior) are contingent on the fit between individual characteristics and organizational characteristics (Burns & Stalker, 1961). Environmental fit models are considered a critically important theoretical framework for understanding vocational processes, cognitions, and behaviors. The P-E fit approaches have been extensively researched to study work-related outcomes, including OC (Blau, 1987). The need for congruence between a persons' work interests and their work environment has been shown to have a significant impact on organizational outcomes, such as job satisfaction and productivity (Furnham & Schaeffer, 1984). Generally, P-E fit has been shown to be an important antecedent and consequence to predict job performance, OCB, and turnover (Hoffman & Woehr, 2006; Holcombe-Ehrhart, 2006). Considering previous P-E fit research has been shown to predict a variety of work-related outcomes, it is plausible that the addition of P-E fit could have provided additional information to make comparisons with the existing variables in the present study.

The present study did not take into consideration issues involved in the P-E fit model, such as the congruency or incongruency of each research participant to their respective work environment. For example, the work environment of a traditional rehabilitation organization could be much different than the work environment in other

organizations (i.e., banks, hospitals, construction site). In addition, many traditional rehabilitation organizations have a work environment that serves a diverse and often challenging consumer population and hire personnel with a wide variety of educational and vocational histories. Historically, personnel issues (i.e., turnover and burnout) have been considered more prevalent in rehabilitation organizations than other organizations (Barrett, Riggar, Flowers, Crimando, Bailey, 1997). In relation, the consequences of P-E incongruency have been shown to lead to absenteeism, frustration and stress among personnel (Furnham & Walsh, 2001). Therefore, it would be important to determine the impact of P-E fit in rehabilitation organization, as well as its relationship to other existing personnel issues. It may have also been noteworthy to determine if perceptions of P-E fit affected the variables of interest in the present study. It is possible that congruent P-E fit would influence the perceived LMX between research participants and their direct supervisors, as well as their willingness to engage in OCB and OC. Inversely, it is possible that an incongruent P-E fit could lead to a perceived low quality LMX relationship among between research participants and their direct supervisor, as well as adversely impact their willingness to engage in OCB and OC. In general, issues with P-E fit can potentially make important contributions to future LMX research being conducted.

The present study was the first of its kind to look at the relationship between LMX and the following participant characteristics: organizational citizenship behavior, organizational commitment, dyadic duration, and gender in a rehabilitation organization. No previous LMX study conducted in a rehabilitation organization had looked at the relationship between LMX and the previously mentioned participant characteristics. Considering that the present study was based on previous empirical LMX research, many

of the relationships between LMX and other participant characteristics focused on in the present study are already well established. Therefore, it seemed plausible that the proposed research questions and hypotheses in the present study would result in a significant, positive relationship between LMX and the participant characteristics chosen. Although only one rehabilitation organization was targeted for the present study; this organization had a national reputation of excellence, is accredited by the Commission on Accreditation of Rehabilitation Facilities and served a large number of consumers from across the country. As a result, reasonable generalizations could be made to other similar rehabilitation organizations. Other organizational variables (i.e., job satisfaction, job performance, burnout, and turnover) shown to be related to LMX were not be considered in the present study. The organizational variables not employed in the present study may potentially have had a stronger relationship with LMX than those chosen. In addition, research participant demographics such as, racial ethnicity, age, socio-economic status, and education were not considered in the present study. It is possible that these participant characteristics would have shown a stronger positive relationship with LMX than gender. Noteworthy, incorporating a multicultural component into the present study may not have yielded a paucity of useful additional information considering the lack of variability of ethnic backgrounds of the direct supervisors in the present study. IAll of the direct supervisors included in the present study were from a Caucasian ethnic background.

#### Summary

The present study investigated the relationship between LMX and two participant characteristics, organizational citizenship behavior and organizational commitment, as

well as the relationship between LMX and gender and LMX and dyadic duration in a rehabilitation organization. The present study also investigated the quality of the LMX relationship that subordinates have with their direct supervisor. In addition, the relationship between LMX, OCB and OC obtained from survey data and gender and dyadic duration information derived from demographic data, respectively, were obtained from subordinate staff currently employed at a large rehabilitation organization in the Midwest. (see Appendix A, p. 112, for a depiction of the relationship among all variables, including research questions and hypotheses).

This manuscript is organized into five different chapters. Chapter one gave an introduction, chapter two consisted of a comprehensive review of the relevant literature, chapter three consisted of the methodology for the present study, chapter four consisted of a results section, and chapter five a discussion. Chapter two will include a review of the LMX literature in relation to relevant subordinate characteristics and organizational outcomes.

#### CHAPTER 2

#### LITERATURE REVIEW

This chapter begins with an overview and literature review of leader-member exchange (LMX) theory, including its relevance and contribution to important individual and organizational outcomes. The relationship between LMX and each of the following organizational variables will also be discussed: organizational citizenship behavior (OCB), organizational commitment (OC), dyadic duration and gender. In particular, this section will discuss the relationship between subordinates' perceptions of the quality of the leader-member relationship (LMX) and their willingness to engage in OCB and OC. This section will be followed by a review of subordinates' perceptions of the quality of the LMX with the supervisor and how it may differ according to the gender of the supervisors and dyadic duration of the LMX. An additional section will review how dyadic duration may moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in OCB and OC. Finally, the last section will discuss the possibility of gender to moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in OCB and OC. The relationship between the aforementioned variables will be given particular consideration for its application to rehabilitation organizations.

Overview of Leader-Member Exchange (LMX) Theory

Originally conceptualized as Vertical Dyad Linkage theory by George Graen and colleagues in the early 1970s, LMX theory has evolved from a focus on interdependent dyadic relationships to how these dyadic relationships function interdependently with an organization (Graen et al., 1975). The LMX theory is different than most traditional

leadership theories that assumed a leader displayed an 'average leadership style' to all subordinates. The main premise behind LMX theory is that a supervisor inevitably forms a separate dyadic relationship with each of their subordinates. This relationship between supervisor and each subordinate will emerge in the form of either a high quality or low quality LMX relationship. Subordinates in a high quality LMX relationship are referred to as in-group members, whereas subordinates in low quality LMX relationships are considered out-group members (Truckenbrodt, 2000). These relationships are known to develop quickly and remain relatively stable over time. A top priority of supervisors is to establish as many high quality LMX relationships with their subordinates as possible in an effort to help promote overall organizational effectiveness.

Leader-Member Exchange Theory and Individual and Organizational Outcomes

The relationship between LMX quality and various individual and organizational outcomes is well documented in the LMX literature. For example, LMX has been linked to subordinate job satisfaction (Beehr et al., 2006; Mueller & Lee, 2002; Stringer, 2006). Stringer found that high quality LMX was positively related to both intrinsic and extrinsic employee job satisfaction. The author also found that when subordinates have a high quality LMX relationship with their supervisor they have more effective communication, trust, and responsibility, and as a result, they are more satisfied with their jobs, are more productive, and help their organization become successful. Beehr et al. 2006 examined LMX variables related to supervisor satisfaction with and liking for subordinates. The authors also examined entity relationships in the form of similarity between supervisors' and subordinates' values. They found these relationships were positively related to supervisor satisfaction with subordinates. In addition, supervisor

liking was positively related to satisfaction with subordinates. This study was unique since the LMX relationship and job satisfaction was examined solely from the perspective of the supervisor.

A number of other LMX studies have examined the link between LMX and performance. Many of these studies report higher performance from subordinates in high quality LMX relationships (Deluga & Perry, 1994; Deluga, 1994), whereas other similar studies report relationships between LMX and performance that are weak (Rosse, & Kraut, 1983), mixed (Wayne & Ferris, 1990), or not significant (Liden, Wayne, & Stilwell, 1993). Dunegan et al. (2002) examined the moderating effects of the following task characteristics, role conflict, role ambiguity, and intrinsic task satisfaction on LMX and subordinate performance. Results showed that all three contingency variables influenced the correlation between LMX and subordinate performance.

The LMX theory has been linked to various undesirable individual outcomes, including subordinate absenteeism. Dierendonck et al. (2001) found a positive relationship between LMX and subordinates' feelings of reciprocity and frequency of absenteeism. In particular, more reciprocity led to more frequent short-term absenteeism. The authors speculated that subordinates in high quality LMX relationships might have assumed being absent on occasion was seen as a luxury of in-group member status. Vecchio and Norris (1996) attempted to predict employee turnover from performance, satisfaction, and leader member exchange. Findings showed an inverse correlation between subordinate satisfaction with their supervisor and turnover, showing that subordinates who were satisfied with their supervisors were less likely to quit. In addition, deviation scores on LMX tended to exceed average scores in predicting

turnover. Finally, this study showed that LMX was consistently related to subordinate performance, but not consistently related to subordinate turnover (Vecchio et al., 1996).

Another undesirable individual outcome linked to LMX is subordinate work-related stress. A number of previous studies examining the LMX-stress relationship found a negative relationship between high quality LMX among subordinates and lower levels of stress (Lagace, Castleberry, & Ridnour, 1993). Contrary to these findings, Harris and Kacmar (2005) found that subordinates in high quality LMX relationships with their supervisors experienced more stress than their counterparts in low quality LMX relationships. The authors speculated that subordinates in high quality LMX relationships may feel increased pressure and obligation to satisfy their supervisor and consequently experience more stress.

Another LMX-stress study focused on work-related stress due to organizational politics and work strain. For the purposes of this study, organizational politics includes the perceived "actions by individuals which are directed toward the goal of furthering their own self-interests without regard for the well-being of others or their organization" (Kacmar & Baron, 1999, p. 4). Organizational politics are said to blur the rules of conduct which can lead to increased work-related stress and strain. The authors proposed that three supervisor constructs would decrease (i.e., moderate) subordinates' strain levels, including LMX, participation in decision making, and supervisor communication. Results showed three ways that a supervisor can plan a buffering role in politics-job strain among subordinates include developing a high quality LMX relationship with subordinates, giving subordinates an opportunity to speak, and communicating with them regularly (Harris & Kacmar, 2005).

A particular body of LMX research examining the determinants of work-related stress and overall well being and ways to address these constructs is also available. It has been shown that many work-related stressors may be managed by using social resources available in the workplace. These social exchanges are largely determined by the quality of the LMX relationship a subordinate has with their supervisor. It has been proposed that the quality of social exchanges may help to prevent psychological health problems (Wilson, Dejoy, Vandenberg, Richardson, & McGrath, 2004). Nelson, Basu, and Purdie (1988) stated that the quality of LMX may affect psychological health. The extent that leaders provide psychologically secure environments, the infrastructure necessary for accomplishing tasks, and the latitude to make decisions, followers are likely to perceive situations as being governable and non-threatening. Conversely, failure to provide such environments is more likely to result in feelings of isolation, solitude and lack of control (p. 106). Essentially, subordinates in high quality relationships may receive access to many resources which may help them with workplace stressors. Whereas, subordinates in low quality LMX relationships may not have access to these same resources, which may result in minimal feedback and support from their immediate supervisor and may have a negative impact on psychological health. For these reasons the following study was conducted in a prison setting.

Rousseau, Aube, Chiocchio, Boudrias, and Morin (2008) tested the effects that the quality of LMX and work integration had on psychological health, as well as their interaction effect. Work integration (WGI) refers to the quality of relationships that an individual has with his or her peers considered as a whole. Also, work integration related to perceived approval from coworkers and inclusion in their activities, which can be a

source of social support and assistance (Kammeyer-Mueller & Wanberg, 2003). It has been shown that WGI can enhance psychological health. Survey data was collected from 249 employees of a rural, Canadian prison. Results showed that the quality of LMX and WGI is likely to enhance subjective well-being and reduce psychological distress. The results showed that the LMX relationship with coworkers had a stronger effect on psychological health than does the quality of the relationship with the immediate supervisor. The results also showed that the combination of both LMX and WGI can produce a stronger effect on psychological health than either one alone.

The relationship between LMX and subordinates' feedback-seeking behaviors has also been investigated in the literature. Previous LMX research has shown that supervisors share information more with their high quality LMX subordinates (Graen & Scandura, 1987). In addition, LMX quality has been shown to positively impact subordinates' communication and satisfaction when receiving feedback and also subordinates' need to give upward feedback (Mueller & Lee, 2002). Findings from an LMX and feedback-seeking study conducted among subordinates of a civil engineering company in South Korea showed that LMX quality influenced subordinates' feedback seeking strategy preferences. Additionally, LMX was found to be positively related to preferences for using indirect feedback seeking strategies. These findings demonstrated that LMX is in fact related to information exchange by way of subordinates' seeking feedback information (Lee et al., 2007).

Deluga and Perry (1991) conducted a similar LMX study investigating the relationship between subordinate upward influencing behavior, satisfaction and perceived superior effectiveness with leader-member exchanges. In particular, subordinate upward

influencing behavior, defined as an attempt by a subordinate to secure a desired behavior from the supervisor, is evident in nearly all organizations. One purpose of this study was to investigate how reported subordinate upward influencing behavior varies with the quality of the LMX. Results showed that higher quality LMX was significantly associated with subordinate upward influence success, subordinate satisfaction and superior effectiveness measures.

Another related communication study applied LMX theory to the student-instructor relationship to determine if students' perceptions of their relational quality with their instructors are indicated in their intentions to communicate with their instructors (Myers, 2006). Results showed that students who perceived in group status with their instructors communicated more and engaged in higher rates of feedback-seeking behaviors than students who perceived out-group status with their instructors. In this context, the authors concluded that students in high quality LMX relationships with their instructors may view their communication and feedback-seeking as active attempts to promoting a supportive classroom environment, especially is these attempts are reinforced and supported by their instructor.

Leader-Member Exchange Theory in Rehabilitation

Three published LMX studies have been conducted within the field of rehabilitation. Hopkins (2002) investigated the positive relationship between organizational citizenship behavior (OCB) and LMX, as well as the positive relationship between OCB and subordinates perceptions of organizational support, developmental experiences, quality work performance, level of professionalization and negative relationship between OCB and employment in a public service agency. The sample

consisted of 140 randomly selected employees from five urban and rural, public and private not-for-profit child and family service agencies. Self-administered questionnaires were distributed to randomly selected direct service workers. Results found that LMX was not significantly related to OCB, although LMX was positively associated with workers' developmental experiences and perceived organizational support. Subordinates' perception of the quality of the LMX relationship with their supervisor did not contribute to their willingness to engage in OCB.

Another LMX study in rehabilitation examined the effect of disability on supervisor-subordinate LMX relationships. Colella and Varma (2001) investigated the influence that subordinate disability had on the quality of LMX relationships. It was proposed that disability status of a subordinate would influence a supervisor's decision to place a subordinate in an in-group or out-group status. It was also proposed that subordinate disability may influence the quality of LMX relationships, with supervisors having less favorable LMX towards these subordinates because these subordinates are different from themselves. Based on these assumptions, the authors derived at the following hypotheses: 1) Supervisors without disabilities will form lower-quality LMX relationships with subordinates with disabilities than they do with nondisabled subordinates, 2) Subordinate performance and subordinate disability status will interact to influence LMX quality in such a way that a higher performance level will have a stronger, positive impact on LMX relationships formed with subordinates with disabilities than on LMX relationships formed with nondisabled subordinates, 3) Subordinate ingratiation (a class of behaviors employed by a person to make himself/herself more attractive to another) and subordinate disability status will interact

to influence LMX quality, such that ingratiation will have a stronger positive impact on LMX relationships for subordinates with disabilities than on those relationships formed with non-disabled subordinates.

Colella and Varma (2001) conducted two different studies and reported the results together in an effort to examine the impact of subordinate disability on the quality of LMX relationships, a simulation experiment and a correlational field study. In both studies, disability and ingratiation interacted to influence supervisors' ratings of LMX quality and ingratiation was more strongly related to LMX quality for subordinates with disabilities. An important practical implication from this study dealt with the importance for people with disabilities to engage in ingratiation behaviors than it is for their non-disabled counterparts. This was due mainly to the field results showing that subordinates with disabilities engaged in more ingratiation than did other subordinates.

A final LMX study in rehabilitation examined the relationship between LMX and burnout in psychiatric rehabilitation workers. Survey data was collected from 79 workers employed in an urban psychiatric rehabilitation agency in Illinois. Results showed that an increase in LMX scores resulted in a decrease in burnout scores. Also, as contribution scores increased, burnout scores decreased. Lastly, results showed that as contribution and loyalty scores increased together, burnout scores decreased (Larson & Gouwens, 2008). Implications noted by the author included how rehabilitation leaders could possibly influence subordinate burnout by interacting with members in such a manner that promotes high quality LMX relationships. This study was evidence that burnout and LMX are at opposite ends of the continuum.

Leader-Member Exchange, Role Theory and Social Exchange Theory

The LMX model has as its foundation role theory and social exchange theory. According to role theorists of LMX, supervisors appoint the more important roles in the organization with subordinates in high quality LMX relationships, termed in-group members. These in-group subordinates receive various work benefits that their low quality LMX counterparts (i.e., out-group members) do not receive. For example, ingroup members are perceived as more productive and are rated higher in job performance. Additionally, in-group members report higher satisfaction with their work, their supervisors, fellow coworkers and salary than out-group members. According to social exchange theory the supervisor provides a subordinate with support and monetary rewards while in exchange, the subordinate demonstrates organizational commitment and competency. As a result, supervisors have certain expectations for their high quality LMX subordinates and in turn, these subordinates have expectations for their supervisors (Hoffman, Morgeson, & Gerras, 2003).

Since LMX relationships are rooted in a social exchange, there is a perceived obligation on the part of subordinates to reciprocate high quality LMX relationships. Therefore, reciprocity is considered a particularly important concept in understanding the relationship between LMX and subordinate behavior (Wayne & Green, 1993). Often when the supervisor engages in in-group exchanges with a subordinate, the subordinate will repay their leader by enlarging their roles to extend beyond normal role requirements (i.e., engage in OCBs). As a result, subordinates in high quality LMX relationships often engage in these discretionary OCBs to repay their supervisor and others in the work setting (Hoffman et al., 2003; Vigoda-Gadot, 2007). Settoon et al. (1996) articulated that

in-group members receive formal and informal reinforcement from their subordinates. These members in exchange seek out extra-role situations as evidenced by OCBs to the supervisor, who then will give more reciprocal support and opportunities to the members. This reciprocal form of helping behavior to achieve goals helps promote the quality of the LMX relationship (Scandura & Graen, 1984). Due to the strong evidence of OCB to promote organizational success and its important relationship to LMX, researchers have given increased attention to the antecedents and consequences of subordinate OCB and LMX theory. Therefore, the focus of the next chapter section will be devoted to the relationship between LMX and OCB.

Leader-Member Exchange Theory and Organizational Citizenship Behavior

A growing body of research has heavily positioned OCB as a consequence of high quality subordinate LMX. Traditionally, OCB, also termed extra-role behavior, has been defined as individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the effective functioning of the organization (Organ, 1988; Pond, Nacoste, Mohr, & Rodriguez, 1997). According to Borman and Motowidlo (1993), citizenship performance "shapes the organizational, social, and psychological context that serves as the critical catalyst for task activities and processes" (p. 71), and includes behaviors such as helping others with their jobs, supporting the organization and volunteering for additional work or responsibility. Other examples of OCB include sitting in for a coworker who is ill, orienting new workers or helping supervisors. These OCBs are considered extremely important for overall productivity because organizations cannot predict through subordinate job descriptions alone the entire range of subordinate work behaviors needed for achieving goals (Organ,

1988).

When conducting OCB research, particular emphasis is placed on five types of OCB including, altruism, courtesy, conscientiousness, sportsmanship, and civic virtue (Organ, 1988). Altruism includes spontaneous behaviors that assist an individual with an organizational task (e.g., assisting coworker with file sorting). Courtesy involves discretionary behavior intended to prevent individual and/or organizational problems from occurring (i.e., helping diffuse an argument between coworkers). Conscientiousness refers to subordinate discretionary role behaviors that exceed the minimum job requirements (e.g., sitting in for a sick coworker). Sportsmanship encompasses avoiding complaining and tolerating complaints from others (e.g., complaining about parking costs and availability). Civic virtue refers to subordinate discretionary behaviors that indicate involvement in the political life of the organization. Examples of civic virtue include, attendance at meetings, reading email, and providing effective feedback to others when appropriate (Organ, 1988). Overall, OCB and its types positively impact the social and psychological work environment to support overall organizational effectiveness. A growing body of LMX and OCB research has emerged along with its combined relationship to various organizational outcomes.

A growing number of researchers have studied potential determinants of OCB in an effort to better understand how OCB might be enhanced. It was determined from this line of research that one of the main correlates of OCB is LMX quality. Wayne and Green (1993) conducted one of the first studies to focus on the relationship between LMX and OCB. In this study, the authors examined the effects of LMX on employee citizenship behavior and impression management behavior. This field study was

conducted in three hospitals and a large medical clinic with 73 subordinate nurses and 25 of their direct supervisors, nurse managers. Results showed LMX was positively related to both subordinate OCB and impression management toward the supervisor. In a similar study examining the relationship between supervisor trust building behavior, quality of LMX, and subordinate OCB survey data was collected from 86 subordinate-supervisor dyads employed in a variety of organizations. Results determined that the quality of LMX was positively related to courtesy, conscientiousness, altruism and sportsmanship OCB (Deluga et al., 1994). Truckenbrodt (2000) conducted a related study among military personnel by collecting LMX survey data from both supervisor and subordinate, as well as OC and OCB survey data from the subordinate. The author found a significant relationship between the quality of the LMX relationship and subordinates' commitment and altruistic OCB. This study was unique in that LMX survey data was collected and analyzed from the perspective of both subordinate and supervisor.

Another relevant LMX and OCB study was conducted in intercollegiate athletic department with an associate athletic director and all third-tier employees of the athletic department. This study focused on the relationship between both transformational leadership and LMX theories and organizational commitment and citizenship behavior. The results showed a strong relationship between supervisor LMX and OCB. Another study tested the proposed influence of LMX, group acceptance, and job attitudes on the OCB among Mexican employees in Mexico. Tierney et al. (2002) sampled 100 professional, white-collar employees from a variety of companies in Mexico enrolled in a Masters level management class. Results of the study suggest that high quality LMX relationships in Mexican organizations are an effective way to enhance subordinate OCB.

The authors emphasized that through the development of high quality relationships with their subordinates, supervisors are able to enable their employees to engage in OCB that lead to organizational effectiveness. A final OCB study used an integrative model to study the link between OCB and trait conscientiousness, job satisfaction, and LMX quality. Results from this study showed that more conscientious employees displayed more OCB, which enhanced LMX quality, and lead to greater job satisfaction. In addition, the results showed that OCB may be used as a means of nurturing higher-quality LMX and to gain more satisfying job experiences (Lapierre & Hackett, 2007).

Leader-Member Exchange Theory and Organizational Citizenship Behavior in Rehabilitation

Only one published LMX and OCB study has been conducted in a rehabilitation organization. Hopkins, 2002 conducted a study with a sample of 140 randomly selected employees from five urban and rural, public and private not-for-profit child and family service agencies. Self-administered questionnaires were distributed to randomly-selected direct service workers. Results found that LMX was not significantly related to OCB. Subordinates' perception of the quality of the LMX relationship with their supervisor did not contribute to their willingness to engage in OCB. These findings supported social exchange theory as applied to the workplace in that a supportive organization resulted in reciprocal work behaviors that benefited the organization. This study also emphasized the relationship between workers' reports of quality work performance and OCB and its importance to service agencies as a whole. Finally, another noteworthy finding of this study relates to the positive relationship between public social service agencies and workers' OCB. This finding was in contrast to the commonly help belief of workers in

public agencies stereotyped as lazy and less likely to engage in extra-role pro-social behaviors (Hopkins, 2002).

An important area of future research stemming from the Hopkins (2006) study was the possible link between OCB, service quality, and consumer satisfaction. It was noted that a combination of supportive organizational policies and environment impacted service workers' willingness to engage in OCB. The author proposed that direct service provider's willingness to engage in OCB may lead to better service quality and consumer outcomes. Additionally emphasis was placed on the need to determine potential factors that influence OCB in social service settings. Being able to understand the determinants of organizational climates and personnel that promote OCBs is a major focus of this dissertation prospectus. The focus of the next chapter section will be devoted to the relationship between LMX and organizational commitment (OC).

Leader-Member Exchange Theory and Organizational Commitment

The relationship between LMX quality and OC is well established in the
literature. A definition of OC is an attitude of company loyalty exhibited by employees.

Mowday, Porter, and Steers (1982) noted commitment is the relative strength of an individual's identification with and involvement in the organization" in terms of values and goals. The concept of OC has also been thought of as the psychological attachment an individual has to an organization. Committed employees are correlated with higher levels of organizational performance, lower rates of turnover, and have low absenteeism (Ostroff, 1992). Therefore, it is important that a supervisor convey to their subordinates the goals and mission of the organization. An organizational culture that is able to accomplish this awareness will permeate a sense of belonging and identification with the

organization, thus positively influencing the subordinate's commitment to the organization. The importance of OC to the workplace stems from the 'pervasive drive of persons to identify with the social systems' of which they are a part (Rosseau, 1998). This identification has been shown to be greatly influenced by the LMX relationship between a supervisor and a subordinate.

The quality of leader-member exchanges has been found to positively correlate with OC. When subordinates in high LMX relationships are given more responsibility, support, and influence they will often display greater loyalty to the organization. Yukl (1989) found that high quality LMX relationships resulted in employees being more committed to both task completion as well as assisting the leader in meeting goals. Personal characteristics shown to relate to OC include length of stay in the organization and age. Conclusions on these personal characteristics derive from Becker's (1960) "sidebet" theory, stating that the more an individual invests in an organization (i.e., time, money, and values), the greater loss for that employee when quitting. Glisson and Durick (1988) found that among human service workers, older employees had higher levels of OC than younger workers did. In addition to a general definition, OC is made up of three distinct dimension used for increased investigation into its construct.

Organizational commitment is made up of three dimensions (Meyer & Allen, 1991). Affective commitment is defined as "the employee's attachment to, identification with, and involvement in the organization. Employees with a strong affective commitment continue employment with the organization because they *want* to do so" (p.67). Normative commitment is defined as the employee's feeling of obligation to continue employment. Employees with a high level of normative commitment feel they

ought to remain with the organization" (p.67). Continuance commitment refers to "an awareness of the cost associated with leaving the organization" (p.67). All three of these dimensions have been empirically studied in the OC literature and equally contributed to its understanding in the literature.

A number of studies have investigated the relationship between LMX and OC. Sias (2005) examined the extent to which the amount and quality of work-related information employees received was correlated to the LXM relationship with coworkers and their immediate supervisors. Supervisor-subordinate LMX quality was strongly associated with both the amount and quality of information employees reported receiving from their supervisors. Results from regression analyses indicated that the quality of information employees received from their supervisors and coworkers was positively related to their job satisfaction and commitment to the organization. Another previously mentioned study examined the relationship between LMX, OCB, as well as OC in intercollegiate athletics. Results showed a positive correlation between LMX and the OC dimensions, affective and normative (Kent & Chelladurai, 2001). A similar previously mentioned study also examined the relationship between LMX and OCB and OC (Truckenbrodt, 2000). Results from this study showed a significant positive relationship between LMX quality and OC. Implications of this study included an awareness of improving LMX quality will increase subordinates' sense of OC and OCB, ultimately leading to organizational success.

Another previously mentioned study focusing on the relationship between LMX and OCB also was interested in the relationship between LMX and job satisfaction and OC (Tierney et al., 2002). The authors proposed that a sense of belonging and loyalty to

the organization may also elicit OCB. Additionally, it was proposed that OC would mediate the relationship between LMX and OCB. Results found that high LMX supervisors' influence on OCB was due to subordinate OC. Martin et al. (2005) conducted another study in a financial services organization to examine the relationship between locus of control, LMX, and a variety of work-related outcomes (i.e., intrinsic/extrinsic job satisfaction, work-related well-being, and organizational commitment). Results found that subordinates with an internal locus of control develop better quality relations with their supervisors, as well as more favorable work-related outcomes. It was shown that LMX mediated the relationship between locus of control and all work-related outcomes, including OC.

Leader-Member Exchange Theory and Organizational Commitment in Rehabilitation

Two published studies were found examining the relationship between LMX and OC in the field of rehabilitation. Jaskyte (2003) assessed changes in rehabilitation employees' perceptions of leadership behavior, job design, and organizational arrangements and their job satisfaction and commitment. The author hypothesized that employees' perceptions of organizational arrangements, job design, and leadership behavior would be related to their job satisfaction and their OC. The two variables, job satisfaction and OC, were chosen for this study because of their negative relationship with turnover, burnout, and intention to leave. It was proposed that knowledge of the factors associated with these two variables, will help promote rehabilitation employee outcomes, as well as effective service delivery and organizational performance (Jaskyte, 2003). Results showed that employees' perceptions of leadership behavior, job design, and organizational arrangements were correlated with their job satisfaction and

commitment.

Another related study examined the differences in OC and its correlates among professional and nonprofessional occupational welfare workers. Mannheim and Papo (2000) compared occupational welfare workers with professional training to those without, in terms of their OC and its personal and job characteristics determinants. Results showed that the predicted relationships between OC and the two categories of antecedent factors-demographic and job characteristics, were not supported for both groups of welfare workers. Interestingly, this study matched past findings in that the better educated and more professional employees are less committed to the organization than the less educated (Mannheim & Papo, 2000).

# Leader-Member Exchange Theory and Gender

A large body of LMX research has focused on the subordinate and supervisor demographics within the LMX relationship to better understand how these personal characteristics might influence the quality of the LMX. Many LMX theorists have proposed that supervisor and subordinate characteristics such as gender, socio-economic status, age, and education influence the LMX relationship (Milner et al., 2007). Tsui and O'Reilly (1989) note that demographic similarity between the supervisor and subordinate can positively impact work attitudes and perceptions through interpersonal attraction the frequency of interactions beyond simple demographics. Recently, increased attention has been given to these antecedent and relational factors of what takes place between a supervisor and subordinate that results in either a high quality or low quality LMX relationship. Undoubtedly, early in the LMX relationship, these personal characteristics are especially important and greatly influence subsequent interactions (Wayne et al.,

1994). It has been well established that supervisors develop particular LMX relationships with their subordinates according to their relational demography (Somech, 2003). Of these demographics the influence of gender has generated the most attention and impact regarding the LMX relationship.

A number of other reasons exist to examine gender in relation to LMX. First, overwhelming evidence shows that the sex of a person is a most salient and memorable individual characteristic (Rice et al., 1980). Second, research on stereotyping and information processing have shown gender to be an important individual characteristic that may impact how people initially categorize others. This categorization most often will occur during the initial stages of leader-member exchanges. Collectively, gender may be an important individual characteristic impacting other organizational processes, such as LMX (Wayne et al., 1994). These authors also determined that subordinates with same-sex supervisors are likely to develop higher quality LMX relationships than those with supervisors of the opposite sex. Another study found that female subordinates reported significantly different LMX compared to their supervisors. Additionally, correlations between subordinates and supervisor rating of LMX were significantly higher for female subordinates of female supervisors than for female subordinates of male supervisors (Varma & Stroh, 2001).

Milner et al. (2007) examined the impact of gender on the quality of the leadermember exchange relationships in a South African organization. This study was conducted with 29 individuals comprising two mixed gender groups, each supervised by a different supervisor (a male-supervised group and a female-supervised group). Results indicated that gender had an important influence on the quality of the LMX relationship. Males experienced a more positive LMX relationship under male supervision and females experienced a more positive LMX relationship under female supervision. Also, an interaction was found between gender of supervisor and gender of subordinate, indicating different patterns of exchange between the two groups.

Another LMX and gender study examined demographic and organizational influences on LMX and related work attitudes. In particular, the authors examined influences of relational demography (e.g., gender and age differences between supervisor and subordinate), and organizational characteristics (e.g., size of the work unit), on the quality of LMX relationships. In addition, the authors examined the relative contribution of relational demography, organizational context, and LMX to the subordinates' work attitudes. The sample for this study consisted of 208 employees from 42 public libraries in the Midwest. Results showed that demographics had limited effect on LMX, with gender differences being the only factor. Consistent with previous findings, LMX was found to be low quality when the leader and member are of different genders (Green et al., 1996).

A similar LMX and gender study explored the effects of the different LMX and gender on subordinates' communication expectations with their leaders (Lee, 1999).

Previous research has shown that male and female subordinates in differential LMX qualities may have different communication expectations with their supervisors. In addition, the substantial effect of gender differences on a variety of communication related variables indicates a need for research to address such differences in leader-member communication. It was proposed in this study that gender would interact with the quality of LMX that subordinates have with their supervisors with respect to

communication expectancies. The study sample consisted of 241 full-time subordinates currently employed at a variety of organizations. Results from this study suggested that perceived quality of LMX affects members' expectancies in overall communication patterns with the supervisors depending on their gender (Lee, 1999). Specifically, it was found that females were likely to expect greater change in their communication patterns in the high LMX than males, whereas males were likely to perceive greater change in communication pattern in the low LMX than females.

A final LMX and gender study conducted by Epitropaki and Martin (1999) examined the impact of relational demography on the quality of leader-member exchanges and employees' work attitudes and well-being among administrative employees of a large academic institution. In particular, the role of differences in age, organizational tenure, and gender between supervisor and subordinate as potential moderators between employees' LMX and related work outcomes was examined. Results supported the interaction effect of supervisor-subordinate organizational tenure difference only with LMX and outcome variables. The findings showed that subordinates with a high organizational tenure difference from the supervisor reported the least desirable work outcomes when LMX was perceived to be low quality, whereas when LMX quality was high, subordinates reported the highest work attitudes and well-being. Finally, no support was found for the moderating role of gender similarity (Epitropaki & Martin, 1999). Interestingly, no published LMX and gender studies were found that were conducted in a rehabilitation and/or human service organization.

Leader-Member Exchange Theory and Dyadic Duration

A number of studies have examined how leadership may be influenced by

temporal elements. Time has historically been considered a key element of organizations, having a multitude of effects on organizational members and culture. Surprisingly, very little LMX research has examined temporal variables. A variable that most accurately reflects temporality in LMX relationships is the length of time that a supervisor has been supervised by the same person. Within the LMX literature, this variable is referred to as dyadic duration and reflects a temporal quality of the LMX dyad. As the duration of the leader-follower lengthens, the subordinate becomes increasingly acclimated with their job requirements and their supervisors' expectation. Often, as time goes on, less formal contact is needed between supervisor and subordinate (Mossholdner et al., 1990).

Duarte et al. (1994) examined the interactive influence of performance, quality of the LMX relationship, and the duration of that relationship on performance ratings among 261 paired supervisors and subordinates of a telephone company in the southeastern US. Results suggested that in both the short and long term the performance of employees in high quality LMX relationships were rated high, regardless of measured performance. The ratings of employees in low quality LMX relationships were consistent with their objective performance in the short run but high in the long run, regardless of objective performance. Low LMX subordinates who had been with their supervisor for longer periods received higher performance ratings even when their results-oriented performance is not at a high level. The authors speculated that it is possible that the performance of longer term members is not as salient to supervisors as the performance of newcomers. Overall, the results of this study showed that the quality of the interpersonal relationship between supervisor and subordinate influences rating above and beyond performance.

Another study focusing on the relationship between LMX and dyadic duration targeted 116 subordinates at a medium-sized industrial company. The authors measured perceived leader behavior, job satisfaction, job performance and dyadic duration. To determine the duration of the LMX relationship, respondents were asked to list the number of months they had worked for their present supervisor. Results suggested that dyadic duration may have influenced the relationship between perceived leader behaviors and follower performance. Essentially, the longer a subordinate works for the same supervisor, the less impact the supervisor's leadership behavior has on performance. On the contrary, subordinates supervised for shorter periods of time under their present supervisor benefited from directive and supportive leader behavior (Mossholdner et al., 1990). Based on these results, an exchange view of the leadership process was adopted that recognized that role making within the supervisor-subordinate dyad occurs over time. Implications of this study included the need to consider personal characteristics of the supervisor and subordinate, but temporal aspects of their relationship as well.

Vecchio (1998) examined the role of LMX, objective performance, employment duration, and supervision ratings among bank tellers employed at 12 branches of a medium-sized bank. The LMX model was used in this study to test LMX as a potential moderator and mediator. Results for the relationship between LMX and dyadic duration found dyadic duration to be positively correlated with performance. Specifically, increases in employment duration were found to be associated with more favorable supervisor ratings and superior objective performance. A final LMX and dyadic duration study examined the link between justice, performance, and citizenship behavior via LMX. To control for alternative explanations for their findings, the authors measured the

length of time an employee had worked with their particular supervisor. Dyadic duration was not found to moderate nor mediate the variance between LMX and justice, performance, and citizenship behavior (Vecchio, 1998). No published LMX and dyadic duration studies were found that were conducted in a rehabilitation and/or human service organization.

#### CHAPTER 3

### **METHODOLOGY**

The purpose of the present study was to investigate the relationship between LMX and two participant characteristics: organizational citizenship behavior, and organizational commitment, as well as the relationship between LMX and gender and LMX and dyadic duration in a rehabilitation organization. The present study also included an investigation of the quality of the LMX relationship that subordinates have with their direct supervisor. In addition, the relationship between LMX, OCB and OC, obtained from survey data and gender and dyadic duration information from demographic data, respectively, was obtained from subordinate staff currently employed at a large rehabilitation organization in the Midwest. Chapter one of the present study introduced a background of the problem, significance of the problem, and purpose of the study. Chapter two gave an overview and literature review of leader-member exchange (LMX) theory, including its relevance and contribution to OCB, OC, gender, and dyadic duration. This chapter is a discussion of the methodology of the study in relation to the RQs, design of the study, sample, instruments, procedures, data collection and analysis, and limitation and delimitations of the study.

## Design of the Study

This study utilized a survey research design, in particular, a cross-sectional survey design. This design allows data to be collected from a sample to represent a larger population. Survey research is considered one of the most important areas of measurement in applied social science research. In particular, questionnaire surveys are an excellent method of measuring attitudes and intended behaviors in a larger population

when direct observations of behavior are not possible (Dillman, 2000). Two different methods of administering the same questionnaires were used for the present study, a group-administered questionnaire method and a household-drop off survey method (Trochim, 2001). The group-administered questionnaire method consisted of a sample of respondents being brought together and asked to respond to a structured sequence of questions. This type of questionnaire is administered to a group for convenience and to assure a high response rate. For the purposes of the present study, this group administration method was used by having an assembly of research participants available at the same time during one of their scheduled staff meetings. Targeting scheduled staff meetings like this allowed a large amount of research participants to complete individual research packets at one time.

The second method of administering the questionnaires was the household dropoff survey method which consisted of a researcher going to the respondent's home or
workplace and handing the respondent the instrument. Using this method, the respondent
was able to complete the survey in private at their home or work setting and at their
convenience, as well as ask questions about the study if needed (Trochim, 2001). For the
present study, the targeted research participants who were not reachable during a
scheduled staff meeting were contacted in person during work times by the principal
investigator and asked to complete a research packet. Potential research participants were
asked to complete a research packet, including the three separate questionnaires, either as
a group during a scheduled staff meeting or on the job at their respective work sites.

Overall, survey research is considered a quick, easy, inexpensive, and accurate approach
to collecting data. Additionally, researchers can use surveys in a fairly flexible manner

depending on the goals and type of the research to be conducted (Dillman, 2000).

The independent variables in this study included gender of the subordinate and dyadic duration of each respective subordinate and supervisor dyad. The information regarding these independent variables was be collected from the demographic sheet (See Appendix B, p. 113) included as part of the research packet administered to each research participant. The dependent variables in the study were the scores from the Team Leader-Member Exchange (LMX-SLX) Scale (See Appendix C, p. 114-115), the Organizational Citizenship Behavior Scale (OCBS) (See Appendix D, p. 116-118), and the Organizational Commitment Questionnaire (OCQ) (See Appendix E, p. 119-121).

# **Research Questions**

The following research questions were addressed in the present study:

- 1) Is there a relationship between subordinates' perceptions of the quality of the leader-member relationship (LMX) and their willingness to engage in organizational citizenship behavior?
- 2) Is there a relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?
- 3) Do subordinates' perceptions of the quality of the LMX with the supervisor differ according to the gender of the supervisors and subordinates (same-sex vs. different sex)?
- 4) Are subordinates' perceptions of the quality of the LMX with the supervisor related to dyadic duration of the LMX?
- 5) Does dyadic duration moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in

- organizational citizenship behavior?
- 6) Does dyadic duration moderate the relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?
- 7) Does gender moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in organizational citizenship behavior?
- 8) Does gender moderate the relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?

## Sample

The sample was comprised of direct service subordinates currently employed at a large rehabilitation organization in the Midwest region of the United States. A total of 100-120 direct service subordinates were employed at this rehabilitation organization at any one time and all were asked to voluntarily participate in the study. Therefore, the total sample size for the present study was intended to be between 100-120 research participants. All research participants were at least 18 years of age and their own legal guardians.

#### Instruments

Team Leader-Member Exchange (LMX-SLX) Scale. The 10-item LMX-SLX scale developed by Graen, Hui, and Taylor (2004) measured the quality of the LMX relationship between a supervisor and his or her direct subordinate with ten sensitive questions (see Appendix C, p. 114-115). Permission was granted from George Graen to use this LMX scale only. The LMX-SLX can be used with the supervisor as the referent or the subordinate as the referent. For the purposes of the present study, the LMX-SLX

used the member as the referent to assess the quality of the supervisor-subordinate relationship from the subordinate's perspective. The LMX-SLX was administered to all direct service subordinate staff serving as research participants for the present study. Example items included: "My supervisor is satisfied with my work," "My supervisor will repay a favor," and "My supervisor would help me with my job problems" (see Appendix A, p. 112).

The LMX-SLX is one of the most commonly used instruments currently used to measure subordinates' perceptions of the LMX relationship with their direct supervisor. The LMX-SLX measures three dimensions of leader-member relationships: respect, trust, and obligation. Each item of the LMX-SLX is measured on a Likert-type scale (1-5) indicating the degree to which an employee thinks the item is true. All items are positively worded with higher scores representing higher levels of leader-member exchange. The LMX-SLX contains no reverse scored items. The internal consistency of the responses on the LMX-SLX was high, = .95. Classic item analysis of the LMX-SLX indicated that the indices demonstrated high levels of discrimination. Item scores ranged the entire rating scale. The LMX-SLX has been shown to be useful in circumstances when scores on the measure are used to differentiate individuals in terms of their levels of LMX. In addition, the LMX-SLX measure has been useful for distinguishing between individuals with similar but different levels of LMX. Items from the LMX-SLX have also been found to highly discriminating. In comparison to a similar LMX measure, the LMX-MDM, the values in the parameter from the LMX-SLX were found to be more consistent, as well greater amounts of psychometric information. The LMX-SLX was also found to be slightly more efficient that other similar LMX measures (Scherbaum, Naidoo, &

Ferreter, 2007).

Organizational Citizenship Behavior Scale (OCBS). The 16-item organizational citizenship behavior scale of Smith, Organ, and Near (1983) measured OCB using two subscales. The first 6-item subscale was altruism (e.g., helps others who have been absent, helps others who have heavy workloads). The second 8-item subscale was generalized compliance (e.g., punctuality, does not take extra breaks, does not engage in idle conversations). For the purposes of the present study, the OCBS used the subordinate as the referent. The OCBS was administered to all direct service subordinate staff serving as research participants for the present study. Example items included: "I take work home or stay late to finish up work, even if not specifically asked to do so"; "I go out of my way to help a co-worker who is having difficulty in his or her job". Each item was measured using a 5-point Likert scale containing the following response ranges: "never" (1), "seldom" (2), "occasionally" (3), "often" (4), and "almost always" (5). The OCBS was scored by totaling responses for all questions with scores ranging from 16-80. A high score represented a high display of OCB. The altruism subscale was calculated by totaling up responses to questions 1, 3, 5, 7, 12, and 13 (range=6-30). The compliance subscale was calculated by totaling up responses to questions 2, 4 (reversed), 6, 9, and 10 (reversed), 11, 14, and 16 (range=8-40). Truckenbrodt (2000) found a high level of internal consistency and reliability for the OCBS (.718) and the altruism subscale (.746). Pond, Nacoste, Mohr, and Rodriguez (1997) found coefficient alpha reliabilities for the two scales of altruism and compliance were .91 and .81, respectively. Organ and Konovsky (1989) found similar coefficient alpha reliability scores for both subscales of the OCBS.

Organizational Commitment Questionnaire (OCQ). The 15-item organizational commitment questionnaire of Mowday, Steers, and Porter (1982) measured subordinate OC. The OCQ characterized commitment as having as three factors: 1) a strong belief in and acceptance of the organizations' goals and values, 2) a willingness to exert considerable effort on behalf of the organization, and 3) a strong desire to maintain membership in the organization. The OCQ also measured the consistency between respondent and organization goals and the respondent's willingness to work for the good of the organization (Ingersoll, Olsan, Drew-Cates, DeVinney, & Davies, 2002). The OCQ was administered to all direct service subordinate staff serving as research participants for the present study. Example items included: "I am proud to tell others that I am a part of this organization." For the purposes of the present study, the OCQ used the subordinate as the referent. Each item was measured using a seven-point Likert scale. The OCQ was scored by totaling up responses for all questions and then dividing the number of questions by fifteen to derive a summary indicator of commitment. The range of possible scores is 15 to 105. A high score represented a high degree of OC. Truckenbrodt (2000) found a high internal consistency and reliability for the OCQ (.884). Mowday, Steers, and Porter (1979) found the OCQ to be internally consistent (median coefficient alphas = .64-.88), stable over time (test-retest reliability = .53-.75 at 2-4 months), and able to demonstrate acceptable convergent and discriminant validity when compared to other tools. Tierney et al. (2002) found the coefficient alpha for the OCQ to be .89. Sias (2005) found the OCQ to have an alpha level of .91.

## **Procedures**

All research-related materials were submitted to the Southern Illinois University

Carbondale Human Subjects Committee and the research advisory committee of the rehabilitation organization where the proposed study took place for review and approval. Upon approval, all direct service subordinate staff targeted to serve as research participants were contacted in person during their scheduled staff meeting or on the job at their respective work sites. At that time, I formally introduced myself and asked for their participation in a research study. As an incentive to promote participation, the site clinical director decided to financially compensate all potential research participants for the equivalent of 30 minutes of their hourly wage for successful completion and return of all research-related materials, and they were informed of this. Research participants were also informed that if participation took place during scheduled work times, this additional financial compensation would be provided in addition to their regular hourly wage.

All research participants agreeing to participate in the study were given a research packet to be completed at their respective worksites. The worksite setting consisted of either a staff meeting or on the job at their respective residential worksite during regularly scheduled work times. Research packets consisted of a cover letter, informed consent sheet, demographic sheet, and three questionnaires. Each questionnaire used the subordinate as the referent. The LMX-SLX scale consisted of statements geared towards each subordinate's respective direct supervisor. Information on subordinate gender and dyadic duration with their residential supervisor was gathered from the demographic sheet completed by all research participants. Each completed demographic sheet was individually numbered to correspond with each completed questionnaire for each research participant.

A coding method was used with each research packet to accurately identify each

subordinate-supervisor dyad, while protecting confidentiality. A reference number was used to correspond with the name of each direct supervisor, as well as to identify the gender of each respective direct supervisor. A separate participant number was used to correspond with the name of each respective research participant. This participant number was also used to match each corresponding demographic sheet and three questionnaires for each research participant. Each research packet consisted of two envelopes. An outer envelope contained all research-related materials for each research participant and had only their first and last name only on the front cover. This outer envelope was not returned and was theirs to keep. An inner envelope had a reference and participant number in the top, right corner of the envelope and was used to return all completed research-related materials. Research participants were informed to seal this inner envelope and write any words over the seal (other than their name) to promote confidentiality.

# Data Collection and Analysis

All data was collected and analyzed in an ethical manner in accordance with the Southern Illinois University Carbondale Human Subjects Committee and the research advisory committee of the rehabilitation organization where the proposed study took place. All data was kept in a safe, secure location to maintain confidentiality for each research participant. Both descriptive and inferential statistics were used to organize, analyze, and evaluate the data. Descriptive statistics to address RQ1-4 consisted of measures of central tendency and measures of variability, as well as appropriate the frequencies and distributions. In addition, the relationships between RQ1-4 were analyzed using the pearson product moment correlational technique. This correlational

technique is most appropriate when all variables are measured at an interval level. RQ5-8 were analyzed using a hierarchical regression analysis procedure. For example, the independent variables (predictor variables) of gender and dyadic duration were entered into a regression equation one at a time to determine if they will predict the corresponding criterion variables. For example, X1 + Y was analyzed first, then X2 + Y. The anticipated sample size (100-120 research participants) was a sufficient total to conduct these analyses. The moderator variables were checked using regression analysis with the predictor variable denoted as LMX and each criterion variable as either OCB or OC. These were the null hypotheses for research questions one through four:

- 1)  $H_0$ :  $\rho_{\text{lmx-ocb}} = 0$ ,  $\alpha = .05$
- 2)  $H_0$ :  $\rho_{1mx-oc} = 0$ ,  $\alpha = .05$
- 3)  $H_0$ :  $\rho_{\text{lmx-gender}} = 0$ ,  $\alpha = .05$
- 4)  $H_0$ :  $\rho_{\text{lmx-dyadic duration}} = 0$ ,  $\alpha = .05$ .

The null hypotheses for RQ5-8 were  $H_0$ : all slopes = 0.

One procedure for testing the assumptions for the data analysis describes the correct method for the ratio of cases to IVs. The procedure of N > 50 + 8m for multiple correlations will be used to test this assumption. Using this procedure and considering overall correlation and individual IVs are needed, N was calculated both ways and the larger number of cases chosen. Alternatively, a higher cases to IV ratio was needed when the DV is skewed, a small effect size is anticipated, or substantial measurement error is expected from less reliable variables. Therefore, if the DV is not normally distributed and transformations are not undertaken, more cases are required. Another assumption involves the absence of outliers among the IVs and on the DVs, when outliers are

detected, they were deleted, rescored, or the variable transformed. The best practice was to deal with outliers among the variables in initial screening runs, and then determine the fit of the solution to the cases. Another assumption included the absence of multicollinearity and singularity. This occurs when the IVs are highly correlated or interactions among IVs have been included in your analysis. To identify singularity and multicollinearity, screening runs were conducted. In regression, mulitcollinearity were identified by very large standard errors for regression coefficients. If deletion of variables is necessary, a choice will be made about which IV to delete. In this instance, the least reliable IV will be deleted. Another procedure to test the assumption involves issues of normality, linearity, and homoscedasticity. An examination of residuals scatterplots provides a test of assumptions of normality, linearity, and homescedasticity between predicted scores and errors of prediction. Assumptions of analysis are that the residuals are normally distributed about the predicted DV scores, that residuals have a straight line relationship with predicted DV scores, and that the variance of the residuals about predicted DV scores is the same for all predicted scores. The assumption of normality is that errors of prediction are normally distributed around every predicted DV score. Linearity of relationship between predicted DV scores and errors of prediction is also assumed. The assumption of homogeneity of variance is the assumption that the standard deviations of errors of prediction are approximately equal for all predicted DV scores. Another assumption of regression is that errors of prediction are independent of one another. A final assumption of regression involves the absence of outliers in the solution. Cases with large residuals are outliers in the solution. To account for this, an examination of the residuals plot must be conducted (Tabachnick & Fidell, 2007). Procedures

described by Tabachnick et al., 2007 were used to remedy violations of assumptions.

#### CHAPTER 4

### RESULTS

The sample for the present study consisted of 41 research participants currently employed as direct service subordinates at a rehabilitation organization in the Midwest. The mean age of the research participants was 31.94 years (SD = 11.22); the age range was from 19 to 65 years. Among the 39 research participants who provided complete data, 34 were female (87.2%) and 5 were male (12.8%). A small majority, 21(53.8%) of the research participants had attained an undergraduate degree; 17 (43.6%) had a high school diploma/GED, and one research participant had a graduate degree (2.6%). Reported ethnic backgrounds of the research participants included 25 White, Non-Hispanic (64.1%), 7 Black, Non-Hispanic, (17.9%), 5 Hispanic (12.8%), 1 Asian/Pacific Islander (2.6%), and 1 other (2.6%). The mean dyadic duration of the research participants in total months was 19.98 (SD = 22.69); dyadic duration in total months ranged from 3 months (2.4%) to 90 months (2.4%).

Complete data from two research participants were excluded from data analyses requiring knowledge of their gender or the duration of their relationship with their supervisors. As a result, only 39 cases were used in computing demographic statistics, while 41 cases were used in questions for which demographics did not matter.

Considering RQ1-2 did not consider the gender of the research participants, data from all 41 research participants were included. Conversely, since RQ3-4 and RQ7-8 did consider gender and dyadic duration, only those 39 research participants with complete data were included. Lastly, due to the small sample size of the present study and for data analysis purposes, instead of testing the entire model at once, the data analysis was conducted

piece by piece (research question by research question). The next portion of the results section is a complete description of each RQ and its corresponding data analysis. See Table 1 (p. 93) for a complete description of variables used in the analyses and their derivations.

# **Data Preparation**

Prior to data analysis, items were re-coded to account for reverse scoring for two measures, the OCBS and OCQ. The original OCBS measure reverse scored item numbers 4, 8, and 10 (Smith, Organ, & Near, 1983). Example reverse scored items on the OCBS included "Coasts towards the end of the day" and "Takes undeserved breaks."

Conversely, the original OCQ reverse scored item numbers 3, 7, 9, 11, 12, and 15 (Mowday, Steers, & Porter, 1979). Example reverse scored items on the OCQ included "I feel very little loyalty to this organization" and "There's not too much to be gained by sticking with this organization indefinitely." Reverse scored items on both the OCBS and OCQ involved less desirable organizational characteristics and behaviors, whereas all non-reversed scored items on both measures dealt with more desirable organizational characteristics and behaviors.

An initial inspection of the univariate distribution of dyadic duration revealed a skewed distribution of scores. A total of 24 research participants (41.4%) had worked with the same direct supervisor for 12 months or less, whereas 17 research participants (58.6%) had worked with the same direct supervisor for 13 or more months. It was expected this skewness would violate the assumption of univariate normality. To account for the skewed distribution, dyadic duration was coded into a dichotomy. Dyadic duration in total months for each research participant was coded as 0 = 1-12 total months with the

same direct supervisor, and 1 = 13 or more total months with the same direct supervisor.

To account for specific items with missing data, the mean score for all research participants was computed for each item with missing data. A computed mean score was then manually entered for each item with missing data, followed by appropriate data analysis. The mean score approach to account for missing data is considered especially useful with research involving a small sample size, when omitting those cases with missing data and then conducting a data analysis is not a viable option (e.g., listwise deletion technique) (Tabachnick et al., 2007). The mean score method to account for missing data has been used extensively in the professional literature (Howell, 2006).

## **Research Questions**

The dependent variable (DV) for all analyses was total LMX, attained by computing the sum of the items on the LMX-SLX (Graen, Hui, & Taylor, 2004). An alpha level of .05 was used for all statistical tests. Simple linear regression analyses were used to address RQ1-4. Hierarchical multiple regression analyses were used to address RQ5-8. An examination of the residual plot for each RQ separately was used to test the assumptions of normality, homogeneity of variance, and independence, depending on the specific RQ and type of regression analysis conducted. To test the assumption of the absence of multicollinearity for RQ5-8, a collinearity data analysis was conducted using SPSS. To test for the presence of multicollinearity, both collinearity statistics, tolerance and VIF, were considered for each RQ with multiple predictors. The assumption of independence was met for RQ1-8 considering each individual research participant completed their respective research packets independently. Therefore, possible errors of prediction were considered to be independent of one another. The variables included in

the analysis and their derivations are summarized in Table 1 (p. 93); the name of the score as identified in SPSS is given in parentheses in the right column.

The following research questions were addressed in the present study:

1) Is there a relationship between subordinates' perceptions of the quality of the leader-member relationship (LMX) and their willingness to engage in organizational citizenship behavior?

$$H_0$$
:  $\rho_{lmx-ocb} = 0$ .

$$H_a$$
:  $\rho_{lmx-ocb} \neq 0$ .

The assumption of univariate normality was met considering the errors of prediction were normally distributed along the zero residual line of the residual plot. A visual inspection of the residual plot revealed at least one outlier. To determine whether the outlier was extreme, its z-score was computed. This z-score met the criteria for standardized residuals, within the absolute value range of greater than or less than 3.30 standard deviations from the zero residual line. Also, a Cook's D analysis of the outlier was found to be less than one and within the acceptable range for scores on the residual plot (Tabachnick et al., 2007).

The independent variable (IV) was total OCB. A linear regression analysis yielded no significant correlation, r = .15, p = .35, between total LMX and total OCB. Therefore, a decision was made to fail to reject the null hypothesis. The regression statistics for RQ1 were as follows:  $R^2 = .02$ ,  $B_1 = 1.90$ , 95% Confidence Interval (CI) = -2.19 to 5.99. Power with 1 predictor and a total sample size of 41 = .68.

2) Is there a relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?

 $H_0$ :  $\rho_{1mx-oc} = 0$ .

 $H_a$ :  $\rho_{lmx-oc} \neq 0$ .

The assumption of univariate normality was met since there was an equal distribution of both positive and negative scores about the zero residual line; the residuals were normally distributed along the expected cumulative probability line. In addition, the residual plot showed no extreme outliers. For RQ2, the IV was COM. A significant correlation was found, r = .38, p = .01. The conclusion was to reject the null hypothesis. The regression statistics for RQ2 were as follows:  $R^2 = .15$ ,  $B_1 = 2.21$ , 95% CI = .48 to 3.95. The power of the regression analysis was .68.

3) Do subordinates' perceptions of the quality of the LMX with the supervisor differ according to the gender of the supervisors and subordinates (same-sex vs. different sex)?

 $H_0$ :  $\rho_{\text{lmx-gender}} = 0$ .

 $H_a$ :  $\rho_{lmx-gender} \neq 0$ .

The assumption of univariate normality was met since errors of prediction were normally distributed along predicted DV scores. No extreme outliers were noted for the residual plot. In addition, the split in the dichotomy between the plotted variables was greater than 90:10 (Garson, 2009), indicating normal distribution of points on the residual plot.

Male vs. female comparisons of subordinates and their direct supervisors were not computed since all direct supervisors in the present study were female. Instead, same sex vs. different sex comparisons were investigated only. Total LMX was used as the DV, with same sex vs. different sex of subordinates and supervisors as the IV. No significant

correlation r = .14, p = .38, was found between total LMX and the sameness or difference in the gender of the supervisors and subordinates and perceptions of the quality of the LMX with the supervisor. A decision was made to fail to reject the null hypothesis. The regression statistics for RQ3 were as follows:  $R^2 = .02$ ,  $B_1 = 2.42$ , 95% CI = -3.08 to 7.93. The power of the regression analysis was .68.

4) Are subordinates' perceptions of the quality of the LMX with the supervisor related to dyadic duration of the LMX?

 $H_0$ :  $\rho_{\text{lmx-dyadic duration}} = 0$ .

 $H_a$ :  $\rho_{lmx-dvadic\ duration} \neq 0$ .

The assumption of univariate normality was met since points on the normal probability plot were normally distributed and followed close to the cumulative probability line. The presence of skewness and extreme outliers was not noted. The dichotomous split between plotted variables was greater than 90:10 and therefore normally distributed.

RQ4 revealed no significant correlation, r = .30, p = .05. A decision was made to fail to reject the null hypothesis. The regression statistics for RQ4 were as follows:  $R^2 = .09$ ,  $B_1 = -4.23$ , 95% CI = -8.49 to .02. The power of the regression analysis was .68.

5) Does dyadic duration moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in organizational citizenship behavior?

 $H_0$ : All slopes = 0.

 $H_a$ : All slopes  $\neq 0$ .

The assumption of multivariate normality was met since plotted data was

normally distributed along the cumulative probability line. As additional evidence, the residual plot revealed no extreme outliers that would skew the error distribution. The assumption of homogeneity of variance was also met since the residuals were evenly distributed around the zero residual line. In addition, the band enclosing the residuals was approximately equal in width for all values. The assumption of the absence of multicollinearity was met for model one, but not met for model two. A collinearity analysis revealed tolerance levels and VIF scores for model one to be .97 and 1.02 for model one and .02 and 63.20 for model two, respectively. Therefore, tolerance levels and VIF scores were within the acceptable range for model one, but not model two. For model two, the moderator variable, dyadic duration, was found to be highly correlated with the main effects, LMX and OCB. Since the main purpose of the moderation question was the interaction between variables, the interaction could not be tested without the main effects. Therefore, none of the variables for RQ5 could be eliminated from consideration and multicollinearity was expected.

A hierarchical regression analysis was conducted for questions five through eight resulting in two models for each respective RQ. RQ5 added a moderation question and included both a main effect and an interaction. For RQ5, model one consisted of total LMX as the DV and the two main effects, total OCB and dyadic duration as IVs. Model two consisted of the two separate main effects, total OCB and dyadic duration, followed by the interaction between total OCB and dyadic duration.

Model one was not significant,  $R^2 = .10$ ,  $F_{(2,38)} = 2.21$ , p = .12. Therefore, a decision was made to fail to reject the null hypothesis. By adding the interaction for model two, significance was found,  $R^2 = .19$ ,  $F_{(3,37)} = 2.86$ , p = .05. A decision was made

to reject the null hypothesis. The power of the regression analysis with 3 predictors and a total sample size of 41 for both models one and two was .48. See Table 2 (p. 94) for additional regression statistics for RQ5.

6) Does dyadic duration moderate the relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?  $H_0$ : All slopes = 0.

 $H_a$ : All slopes  $\neq 0$ .

The assumption of multivariate normality was met since the observed cumulative probability line was normally distributed around each predicted DV score. The assumption of homogeneity of variance was also met since the residuals are approximately equal for all predicted DV scores. From the residual plot, one extreme outlier was noted. This outlier was accounted for by computing a z-score and conducting a Cook's D analysis. The z-score met the criteria for standardized residuals, within the absolute value range of greater than or less than 3.30 scores from the zero residual line. The Cook's D analysis of the outlier was found to be less than one and within the acceptable range for scores on the residual plot (Tabachnick & Fidell, 2007). The assumption of the absence of multicollinearity was met for RQ6, model one, but not met for model two. A collinearity analysis revealed tolerance levels and VIF scores for model one to be within the acceptable range for model one, but not model two. Similar to RQ5, the moderator variable, dyadic duration, for model two was found to be highly correlated with the main effects, LMX and COM. Since the moderation question was intended to show the interaction between variables, the interaction could not be tested without the main effects and multicollinearity was expected.

RQ6 involved the interaction of dyadic duration and total COM. Model one consisted of the two main effects, dyadic duration and total COM entered independent of one another. Model two consisted of the interaction between dyadic duration and total COM. Model one was found to be significant,  $R^2 = .26$ ,  $F_{(2, 38)} = 7.59$ , p = .002. Model two was also found to be significant,  $R^2 = .34$ ,  $F_{(3, 37)} = 6.34$ , p = .001. Therefore, a decision was made to reject the null hypothesis for both models one and two. The power of the regression analysis for both models one and two was .48. See Table 3 (p. 95) for additional regression statistics for RQ6.

7) Does gender moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in organizational citizenship behavior?

 $H_0$ : All slopes = 0.

 $H_a$ : All slopes  $\neq 0$ .

The assumption of homogeneity of variance was met since the variability in scores for total LMX was the same at all values of the DV. The assumption of multivariate normality was met since there was an equal distribution of scores both above and below the zero residual line. One extreme score was noted and accounted for by computing a z-score and a Cook's D analysis. The z-score met the criteria for standardized residuals, within the absolute value range of greater than or less than 3.30 scores from the zero residual line. The Cook's D analysis of the outlier was found to be less than one and within acceptable range for scores on the residual plot. The assumption of the absence of multicollinearity was met for both models one and two. A collinearity analysis revealed tolerance levels and VIF scores for both models one and two to be

within the acceptable range.

RQ7 involved testing the main effect of total LMX as the IV and the main effect of dyadic duration and total OCB, independently. Gender was used as a possible moderator of the relationship between subordinates' perception of the LMX with their direct supervisors and their willingness to engage in OCB. Model one consisted of the two main effects, gender and total OCB. Model two added the interaction between gender and total OCB. Model one was not significant,  $R^2 = .10$ ,  $F_{(2,38)} = 2.21$ , p = .12. Model two was also found to be not significant,  $R^2 = .16$ ,  $F_{(3,37)} = 2.31$ , p = .09. A decision to fail to reject the null hypothesis was made for both models one and two. The power of the regression analysis was .48. See Table 4 (p. 96) for additional regression statistics for RQ7.

8) Does gender moderate the relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?

 $H_0$ : All slopes = 0.

 $H_a$ : All slopes  $\neq 0$ .

The assumption of multivariate normality was met for research question eight. A plot of the residuals show all residuals to be normally distributed with no extreme outliers noted. The assumption of homogeneity of variance was also met since the variance of errors is roughly the same across all levels of the independent variable. Additionally, an equal number of data points both above and below the zero residual line were noted. The assumption of the absence of multicollinearity was met for both models one and two. A collinearity analysis revealed tolerance levels and VIF scores for both models one and two to be within the acceptable range.

RQ8 involved testing the main effect of total LMX as the IV and the two main effects, gender and total COM, independently. Model one focused on the two main effects, gender and total COM. Model two consisted of the interaction between gender and total COM. 52A decision to reject the null hypothesis was made for both models one and two. The power of the regression analysis for both models one and two was .48. See Table 5 (p. 97) for additional regression statistics for RQ8.

### CHAPTER 5

### DISCUSSION

# Summary

The study of leadership continues to be a popular and important research endeavor. Scholarly work to explain the dynamics of leadership in organizational settings have produced several innovative theories. One of the most prevalent contemporary leadership theories in the behavioral sciences today is leader-member exchange (LMX) theory (Graen et al., 1975). LMX focuses on the dyadic relationship between supervisors (i.e., leaders) and subordinates (i.e., members). A unique feature of the LMX model is its emphasis on the different ways in which a supervisor behaves toward different subordinates, with a key component being the quality of the LMX relationship for each leader-member dyad. The quality of the LMX relationship is considered either a high quality or a low quality relationship depending on the subordinate's classification as an in-group or an out-group member.

Subordinates in high quality relationships are classified as in-group members, whereas subordinates in low quality relationships are classified as out-group members (Milner et al., 2007). Subordinates considered in-group members often experience higher degrees of support, trust, respect, and liking beyond what is expected in the employment contract. These subordinates are also given more autonomy and responsibility and are therefore involved in more frequent high-quality exchanges. The remaining subordinates are considered out-group members and are characterized by higher levels of supervisory dislike, control and directives (Anseel et al., 2007). The LMX theory purports that supervisors do not interact with subordinates uniformly because supervisors are often

constrained by limited time and resources (Wayne et al., 1994). Collectively, both high and low quality LMX relationships can have a significant impact on each supervisor subordinate-dyad and the organization as a whole.

Recent LMX research has focused largely on how particular LMX relationships develop and the outcomes these relationships have on individual supervisor-subordinates dyads, as well as the overall effectiveness of the organization. Demographic characteristics such as gender, age, education have been shown to be important antecedent factors for the LMX relationship. In particular, empirical evidence has supported the impact of gender on LMX. Wayne et al. (1994) found that subordinates with same-sex supervisors are likely to develop higher quality LMX relationships than supervisors of the opposite sex. Another important antecedent characteristic shown to impact the LMX relationship is dyadic duration, the amount of time a subordinate has worked for the same supervisor. Mossholder et al. (1990) found that the longer a subordinate worked for the same supervisor, the less impact the supervisor's leadership behavior had on performance. A similar study found that the amount of time spent working with the same supervisor influenced performance ratings (Duarte et al., 1994).

A positive relationship has also been found between LMX and various organizational outcomes, including levels of job satisfaction (Stringer, 2006), turnover (Vecchio, 1998), levels of stress (Harris et al., 2005), amount and quality of work-related information employees receive (Sias, 2005), organization citizenship behavior (OCB) (Wayne et al., 1993), organizational commitment (OC) (Tierney et al., 2002), and subordinate feedback-seeking behaviors (Lee et al., 2007). In particular, a number of studies have found a positive relationship between LMX and a subordinate's willingness

to engage in OCB. For example, Settoon et al., (1996) found that subordinates in high quality LMX relationships with their supervisors sought out extra-role situations in the form of OCB to the supervisor. Similar LMX research has found a positive relationship between LMX and OC. Yukl (1989) found that high quality LMX relationships resulted in employees being more committed to the organization. Collectively, supervisors that can effectively create and sustain high quality LMX relationships can maximize desirable organizational outcomes and minimize less desirable outcomes considered critically important for organizational success.

Considering previous LMX research has shown overwhelming empirical evidence for a relationship between LMX and a variety of antecedent and outcome factors, the theoretical model for the present study focused on the relationship between LMX and the participant characteristics, OCB and OC, as well as the relationship between LMX and gender and LMX and dyadic duration. Consequently, the following research questions were addressed:

- 1) Is there a relationship between subordinates' perceptions of the quality of the leader-member relationship (LMX) and their willingness to engage in organizational citizenship behavior?
- 2) Is there a relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?
- 3) Do subordinates' perceptions of the quality of the LMX with the supervisor differ according to the gender of the supervisors and subordinates (same-sex vs. different sex)?
- 4) Are subordinates' perceptions of the quality of the LMX with the supervisor

- related to dyadic duration of the LMX?
- 5) Does dyadic duration moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in organizational citizenship behavior?
- 6) Does dyadic duration moderate the relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?
- 7) Does gender moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in organizational citizenship behavior?
- 8) Does gender moderate the relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment?

The relationship between LMX, OCB, and OC was obtained from survey data and gender and dyadic duration information from demographic data, respectively. All data were obtained from subordinate staff currently employed at a large rehabilitation organization in the Midwest. Voluntary research participants completed demographic sheets, and questionnaires querying their perceptions of the relationship they had with their immediate supervisors (LMX), their willingness to engage in organizational citizenship behaviors (OCBS), and their commitment to the organization (OCQ).

Simple linear regression analyses were used to address research questions one through four. No significant correlation was found between total LMX and total OCB (Research Question [RQ1]), but a significant correlation was found between total LMX and total COM (RQ 2). For RQ 3, no significant correlation was found between total LMX and sameness or differences in gender of the direct supervisors and research

participants and perceptions of the quality of the LMX with the supervisor. Thus there was insufficient evidence to reject the null hypothesis. No significant correlation was found for RQ4 between subordinates' perceptions of the quality of the LMX with the supervisor and the dyadic duration of the LMX. As a result, a decision was made to fail to reject the null hypothesis.

Hierarchical multiple regression analyses were used to address RQ5-RQ8. RQ5-RQ8 added a moderator question and included both main effects (model one) and an interaction (model two). RQ5 five involved the interaction of dyadic duration and total OCB. Model one was not significant, but model two was found to be significant and the null hypothesis was rejected. There was an appreciable increase in  $R^2$  in model 2. RQ6 involved the interaction of dyadic duration and total COM. Both models one and two were found to be significant. The  $R^2$  change was also significant, changing from .26 in model one to .34 in model two. For RQ7, gender was used as a possible moderator of the relationship between subordinates' perceptions of the LMX with their direct supervisors and their willingness to engage in OCB. Models one and two were found to be not significant and a decision was made to reject both models. RQ8 involved the interaction of gender and total COM. Both models one and two were found to be significant, thus, the null hypothesis was rejected for both models one and two. The  $R^2$  changed, slightly, from .26 in model one to .33 in model two.

## Limitations and Delimitations

The study involved a number of both anticipated and unanticipated limitations.

An anticipated limitation was the use of a correlation design, relying exclusively on survey data for data collection and analysis purposes. Due to the nature of survey

research, relationships between variables can be shown but no direct causation can be inferred between the variables. Another limitation of survey research involves the accuracy of self-report measures, especially in the behavioral sciences (Andrews & Meyer, 2003; Barger, 2002). It is possible that research participants would have self-reported in a more favorable manner on the various measures. Possible reasons for inaccurate self-reporting could be the result of the research participant's current employment status within the organization and the nature of the research questions, regardless of information presented as part of the cover letter, consent form, and verbal script read prior to voluntary participation. Therefore, self-report data and results from the present study must be looked at with caution.

Another limitation involved the use of a single rehabilitation organization for data collection purposes. Additional data from other rehabilitation organizations was not collected. It is possible that other rehabilitation organizations serving similar or different disability populations would have led to different results. In addition, it is possible that similar data collected from non-rehabilitation related organizations (e.g., banks, electrical company) could have led to different results than those of this study. Additionally, organizations in other geographic locations other than the Midwestern region of the United States could have led to different results. Therefore, employing similar research methods as those of the present study in different organizational contexts and geographical regions could have lead to different results.

An additional anticipated limitation of the present study pertained to the unexplained variance involving the effects of the amount of contact that each subordinate had with their direct supervisor. It was possible that two or more subordinates who had

worked for the same direct supervisor for the same amount of time could experience much less contact due to non-overlapping work schedules. For example, it was possible that a subordinate appointed to exclusively work an overnight work schedule could have substantially less face time with her or his respective direct supervisor who worked during the day, than other subordinates with overlapping shifts and more face time with their direct supervisors, regardless of dyadic duration of each respective dyad. As a result, it was possible that a subordinate with a non-overlapping schedule with their respective direct supervisor misperceived themselves to be in a high quality LMX relationship because of their infrequent contact and perceived responsibility and autonomy. On the other hand, another subordinate with very infrequent contact with the same direct supervisor may have accurately perceived that she or he is mistrusted and in a low quality LMX relationship and as a result, the supervisor did not want to be around that particular subordinate as often. This unexplained random variance involving the amount of contact for each supervisor-subordinate dyad could not be systematically accounted as part of the procedures.

Neither were additional demographic variables considered, nor certain individual and organizational outcomes believed to be antecedent and consequences of the LMX relationship. In particular, ethnicity, although included as part of the demographic sheet administered to research participants in the present study, was not included in the research questions or analyses. Consideration of the varied ethnic backgrounds of both research participants and their direct supervisors could have also been useful to determine other, equally relevant antecedent information impacting the relationship between LMX and the variables included as part of the present study. However, all direct supervisors in

the present study were exclusively Caucasian and female. The lack of racial/ethnic variability made it impossible to include supervisor race/ethnicity in the analyses, while the relative lack of different-gender dyads no doubt contributed to the difficulty in finding gender relationships. Therefore, future LMX research investigating various demographic variables of this kind would have to include both subordinates and supervisors of varying gender and ethnic backgrounds. In addition, other outcome variables, such as subordinate satisfaction and performance could have provided additional information used to account for the LMX relationship between subordinates and direct supervisors in the present study.

As an additional limitation, P-E fit, or the congruency or incongruency of each research participant to their respective work environments, was not included in the conceptualization of the study. For example, the work environment of a traditional rehabilitation organization could be much different than the work environment in other organizations (i.e., banks, hospitals, construction site). In addition, many traditional rehabilitation organizations consist of a work environment that serves a diverse and often challenging consumer population and hire personnel with a wide variety of educational and vocational histories. Therefore, it may have been useful to determine the impact of P-E fit for participants and the rehabilitation organization, as well as its relationship to other existing personnel issues.

It may have also been important to determine if perceptions of P-E fit affected the variables of interest included. It is possible that congruent P-E fit would influence the perceived LMX between research participants and their direct supervisors, as well as their willingness to engage in OCB and OC. Conversely, it is possible that an incongruent

P-E fit could lead to a perceived low quality LMX relationship among between research participants and their direct supervisor, as well as adversely impact their willingness to engage in OCB and OC. Therefore, it is plausible that the addition of P-E fit could have provided additional information to make comparisons with the existing variables. In general, issues with P-E fit can potentially make important contributions to future LMX research being conducted.

An unanticipated limitation of the present study was its small sample size.

Although a sample size of between 100-120 research participants was anticipated, data were obtained from only 41 research participants. Of these 41 participants, only 39 research participants had complete data. Two research participants returned their research packet without a completed demographic sheet. Therefore, data from only those 39 research participants could be included in the analyses for any of the six hypotheses involving dyadic duration or gender. Data from all 41 research participants were considered for two additional research questions in which gender and dyadic duration, as demographic characteristics, were not considered. Due to the small sample size, a modified regression analysis technique was employed focusing on separate regression analyses being conducted question by question, instead of the entire model at once.

### Discussion

The relationship between LMX quality and various individual and organizational outcomes is well documented in the LMX literature. For example, a growing body of LMX research has noted OCB as a consequence of high quality subordinate LMX. Since LMX relationships are rooted in social exchange, there is often a perceived obligation on the part of subordinates to reciprocate high quality LMX relationships. As a result, these

subordinates often engage in discretionary OCBs to repay their supervisor and others in the work environment. This reciprocal form of helping behavior to achieve goals helps promote the quality of the LMX relationship for the both supervisor and subordinate. Due to the strong evidence of OCB to promote organizational success and its established relationship to LMX, the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in OCB was built into the theoretical model for this study.

Wayne et al. (1993) examined the effects of LMX on employee citizenship behavior and impression management behavior. This field study was conducted in three hospitals and a large medical clinic with 73 subordinate nurses and 25 of their direct supervisors, nurse managers. Results showed LMX was positively related to both subordinate OCB and impression management toward the supervisor. Some common elements between the (1993) study and the present study are that both studies took place among personnel currently employed in the helping professions and both studies utilized the same OCB scale developed by Smith et al. (1983). Contrary to the Wayne et al., study, a significant relationship between LMX and subordinates willingness to engage in OCB was not found in this study. One explanation for the disparate results of the two studies concerns the sample size of the two studies. Wayne et al., had a total of 73 total dyads participate in their study. Only 41 total research participants took part in this study, with a power of .68.

Similarly Deluga (1994) examined the relationship between supervisor trust building behavior, quality of LMX, and subordinate OCB from survey data collected from 86 subordinate-supervisor dyads employed in a variety of organizations. Deluga

determined that the quality of LMX was positively related to courtesy, conscientiousness, altruism and sportsmanship OCB. A major difference between Deluga's study and this study was the research participants targeted to participate and their respective place of employment. In this study, all research participants were employed at one rehabilitation organization, as opposed to the Deluga study, involving research participants from a variety of different organizations. Another difference between the two studies involved the scales used to measure both LMX and OCB. Deluga used an eight-item Information Exchange Scale (IES; Kozlowski & Doherty, 1989) to measure LMX, as well as the 24-item OCBS developed by Podsakoff, Mackenzie, Moorman, and Fetter, 1990. It is possible that differing interpretations of the LMX and OCB constructs on the scales used in both studies led to the differences in results.

Truckenbrodt (2000) conducted a related study among military personnel by collecting LMX survey data from supervisors and subordinates, as well as OC and OCB survey data from the subordinates. The author found a significant relationship between the quality of the LMX relationship and subordinates' commitment and altruistic OCB. Truckenbrodt's study was unique in that LMX survey data were collected and analyzed from the perspective of both subordinate and supervisor. A total of 63 subordinate-supervisor dyads were utilized in the Truckenbrodt study. This study also used a different LMX scale, the LMX-7, developed by Scandura and Graen (1984), but the same OCBS scale developed by Smith et al. (1983) used in this study.

Although there were many important similarities between these LMX and OCB studies, there were also many important differences. A major difference was the sample size. This study had a substantially smaller sample size than the other studies, the main

reason for the low power observed. It is possible that a larger sample size for the present study would have resulted in higher power and a significant relationship between LMX and subordinates willingness to engage in OCB. Therefore, the particular theoretical model focusing on the relationship between LMX and OCB in the current study does not contribute greatly to this area of research. Follow-up studies using similar methods will need to incorporate a larger sample size in an effort to achieve larger power and a significant relationship between LMX and OCB.

Another component built into the theoretical model for this study focused on the relationship between subordinates' perceptions of the quality of the LMX and their organizational commitment (OC). The importance of OC to the workplace is evident in employee's identification with and involvement in the organization in terms of values and goals. This identification has been shown to be greatly influenced by the LMX relationship between a supervisor and a subordinate. Yukl (1989) found that high quality LMX relationships resulted in employees being more committed to both task completion, as well as assisting the leader in meeting goals. A number of similar studies have investigated the relationship between LMX and OC.

Sias (2005) examined the extent to which the amount and quality of work-related information employees received was correlated to the LXM relationship with coworkers and their immediate supervisors. Total sample size was 190 employees at a large public university. Average work tenure was 13 years. Hierarchical regression analysis summary statistics for LMX and employee commitment reported an  $R^2 = .35$ . In this study, the  $R^2 = .15$  for the relationship between subordinates perceptions of the quality of the LMX and their OC. In the Sias study, supervisor-subordinate LMX quality was strongly associated

with both the amount and quality of information employees reported receiving from their supervisors. Results indicated that the quality of information employees received from their supervisors and coworkers was positively related to their job satisfaction and commitment to the organization. It is possible that the significance of the relationship between LMX and OC in the Sias study was influenced by the larger sample size.

Differences between the two studies include the involvement of other variables in each respective theoretical model, other than LMX and OC, possibly affecting the aforementioned variables. Also, both studies used different scales to measure both LMX and OC.

Martin et al. (2005) examined the LMX-OC relationship in a financial services organization and utilities company and examined the relationship between locus of control, LMX, and a variety of work-related outcomes (i.e., intrinsic/extrinsic job satisfaction, work-related well-being, and OC). They found that subordinates with an internal locus of control developed better quality relations with their supervisors, as well as more favorable work-related outcomes. It was shown that LMX mediated the relationship between locus of control and all work-related outcomes, including OC. A major difference between Martin's study and this study was the sample size. The earlier study sample consisted of 404 employees working in a large financial services organization in the Midlands, UK, as well as 51 employees of a utilities company in South Wales. In addition, each sample consisted of a range of administrative jobs, from semi-skilled to senior management. A closer understanding of the relationship between LMX and OC will involve isolating particular variables specifically shown to be correlated to LMX and OC.

A third component of the theoretical model for the present study focused on if subordinates' perceptions of the quality of the LMX with the supervisor would differ according to the gender of the supervisors and subordinates (same-sex vs. different sex). Antecedent and relational factors that take place between supervisors and subordinates have been shown to result in either a high quality or low quality LMX relationship. Undoubtedly, early in the LMX relationship, these personal characteristics are especially important and greatly influence subsequent interactions (Wayne et al., 1994). It has been well established that supervisors develop particular LMX relationships with their subordinates according to their relational demography (Somech, 2003). Of these demographics the influence of gender has generated the most attention and impact regarding the LMX relationship.

A number of recent researchers have investigated the relationship between LMX and gender. Milner et al. (2007) studied the role of gender and the quality of the LMX relationship in a South African organization. This study was conducted with 29 individuals comprising two mixed gender groups, each supervised by a different supervisor (a male-supervised group and a female-supervised group). Results indicated that gender had an important influence on the quality of the LMX relationship. Males experienced a more positive LMX relationship under male supervision and females experienced a more positive LMX relationship under female supervision. Also, an interaction was found between gender of supervisor and gender of subordinate, indicating different patterns of exchange between the two groups. Similarities between this study and the present study include the small sample size.

Green et al. (1996) examined demographic and organizational influences on LMX

and related work attitudes. The sample for this study consisted of 208 employees from 42 public libraries in the Midwest. Results showed that demographics had limited effect on LMX, with gender differences being the only factor. Reported regression statistics included the relationship between LMX and gender for the variable LMX1,  $R^2 = -.23$ , LMX2,  $R^2 = -.18$ , and LMX3,  $R^2 = -.12$ . An LMX and gender study conducted by Lee (1999) explored the effects of the different LMX and gender on subordinates' communication expectations with their leaders using a factor analysis of responses technique. Considering a different data analysis technique was used for the Lee (1999) study than in this study, the results of the two studies cannot be directly compared. The sample consisted of 241 full-time subordinates currently employed at a variety of organizations. Results from Lee's study suggested that perceived quality of LMX affects members' expectancies in overall communication patterns with the supervisors depending on their gender. Specifically, it was found that females were likely to expect greater change in their communication patterns in the high quality LMX relationships than males, whereas males were likely to perceive greater change in communication pattern in the low quality LMX relationship than females.

A final component of the theoretical model for the current study focused on the relationship between LMX and dyadic duration. Past LMX research has shown that as the duration of the leader-follower relationship lengthens, the subordinate becomes increasingly acclimated with their job requirements and their supervisors' expectation.

Often, as time goes on, less formal contact is needed between supervisor and subordinate (Mossholder et al., 1990). In general, LMX research has shown a positive relationship between the quality of the LMX relationship and dyadic duration.

Duarte et al. (1994) examined the interactive influence of performance, quality of the LMX relationship, and the duration of that relationship on performance ratings among 261 paired supervisors and subordinates of a telephone company in the southeastern US. Low LMX subordinates who had been with their supervisor for longer periods received higher performance ratings even when their results-oriented performance was not at a high level. The authors speculated that it is possible that the performance of longer term members is not as salient to supervisors as the performance of newcomers. Results from the 1994 study are inconsistent with results from this study considering no significant relationship was found between LMX and dyadic duration in the current study. One possible explanation for the disparate results could be the difference in sample size. Complete data were obtained from 261 research participants in the 1994 study, as opposed to 41 research participants in this study. Also, the 1994 study was concerned with the influence of performance, LMX quality, and dyadic duration on performance ratings, as opposed to exclusively examining dyadic duration of the LMX and subordinates perceptions of the quality of the LMX with the supervisor as in this study. Although similar variables were involved in the theoretical model for each respective study, different research questions and hypotheses were targeted.

Mossholder et al. (1990) conducted a similar study focusing on the relationship between leader behavior perceptions and dyadic duration and targeted 116 subordinates at a medium-sized industrial company. Results suggested that dyadic duration may have influenced the relationship between perceived leader behaviors and follower performance. Essentially, the longer a subordinate worked for the same supervisor, the less impact the supervisor's leadership behavior had on performance. Conversely,

subordinates supervised for shorter periods of time under their present supervisor benefited from directive and supportive leader behavior. The 1990 study reported a total  $R^2 = .17$  for leader behavior and dyadic duration. In this study, the  $R^2 = .09$  for the relationship between subordinates perceptions of the quality of the LMX with their supervisor and the dyadic duration of the LMX. Vecchio (1998) examined the role of LMX, objective performance, employment duration, and supervision ratings among bank tellers employed at 12 branches of a medium-sized bank. Results for the relationship between LMX and dyadic duration found dyadic duration to be positively correlated with performance. Specifically, increases in employment duration were found to be associated with more favorable supervisor ratings and superior objective performance.

Similar to the current study, several previous LMX studies utilized a moderator variable. Mossholder et al., (1990) used dyadic duration as a moderator on the relationship between leader behavior perceptions and follower outcomes. With the addition of the moderator, dyadic duration, results showed a  $R^2$  change from .17 to .58.Vecchio (1998) used LMX as a moderator to account for the variance in supervisory ratings, along with the other variables, including dyadic duration. The moderator analyses for the 1998 study achieved a small increment in  $R^2$ , but did not achieve statistical significance. The  $R^2$  change was from .124 to .142 from model one to model two. These results are similar to the effects of dyadic duration as a moderator for this study. Although the two main effects, total OCB and dyadic duration were not significant, by adding the interaction, significance was found. As further indication, the  $R^2$  for research question five nearly doubled, from .10 for model one to .19 for model two. Similarly, although significance was found in research question six for both models one and two,

the change in  $\mathbb{R}^2$  from .29 for model one to .34 for model two was not as great.

No previously published LMX research was found using gender as a moderator variable. For research question seven, gender was not found to moderate the relationship between subordinates' perceptions of the quality of the LMX and their willingness to engage in OCB, but the  $R^2$  changed from .10 for model one to .16 for model two with the addition of the moderator. For research question eight models one and two were found to be significant. The  $R^2$  changed from .26 for model one to .33 for model two. *Implications* 

The importance of the LMX relationship for both leader and member is well documented in the LMX literature. Past LMX research has shown many positive individual and organizational outcomes for high quality LMX relationships. Individual outcomes for subordinates in high quality LMX relationships with their supervisors include greater amounts of support, enhanced communication, responsibility, trust, autonomy, access to formal and informal rewards, and higher levels of job satisfaction (Stringer, 2006). In addition, high quality LMX subordinates are known to have stronger work-related emotional attachments, have higher OC, and are more willing to engage in discretionary OCB. Often, when supervisors and subordinates have high quality LMX relationships, overall productivity and performance is enhanced. Consequently, these individual outcomes can lead to a variety of desirable organizational outcomes. Leaders that can effectively create and sustain high quality LMX relationships minimize turnover, increase job satisfaction, performance, OC, OCB and provide more support and attention to their subordinates (Burton et al., 2008). Desirable organizational outcomes of this kind are, without question, critically important for the effective functioning of any

organization. Collectively, the nature of the LMX relationship can have a major impact on overall individual and organizational success, regardless of the geographic location, personnel, culture, or mission of the organization.

The results of this study have many individual and organizational-level implications. Both supervisors and subordinates within any organization need to be educated on the need and benefit of establishing and maintaining high quality LMX relationships, especially in organizations in which personnel problems are more prevalent. In particular, supervisors need to be aware of how to maximize high LMX relationships among their subordinates. Graen et al., (2004) emphasized that leaders should offer the opportunity to develop high quality LMX relationships to all of their subordinates. Considering the effectiveness of a leader's job performance depends upon the performance of their subordinates, developing more high quality LMX relationships with members will enhance the supervisor's job performance and overall success of the organization. Therefore, it would be especially important for supervisors to offer opportunities to low LMX members and increase their chance of improving the quality of their LMX with their leader over time. To accomplish this, supervisor should be encouraged to establish a feedback seeking environment (Lee et al., 2007), share high quality information (Sias, 2005) and delegate additional responsibility and encourage autonomy among subordinates in low quality LMX relationships (Lee, 1999). It would also be beneficial for human resource personnel to hold regular leadership training sessions to educate supervisors on LMX theory and the many antecedents and outcomes of LMX. For example, as a desirable outcome of high quality LMX, OCB can be taught and practiced among both supervisors and subordinates using a vignette approach where

actual OCBs and their consequences can be examined in specific work-related contexts.

## Directions for Future Research

To date, only three published LMX studies have been conducted within the field of rehabilitation (Colella et al., 2001; Hopkins, 2002; Larson et al., 2008). Considering the lack of published LMX research conducted in rehabilitation organizations, it is critical for future LMX research to be conducted in various rehabilitation organizations, as well as other non-rehabilitation-related organizations. For example, it would be important to discover if future LMX research would yield similar results among rehabilitation organizations serving different disability populations than the population served for the present study, such as individuals with substance use disorders. Additionally, it would be important to target rehabilitation organizations in other geographic locations other than the Midwest region of the United States. It is possible that other geographic locations both nationally and internationally would have varying individual and organizational structures in place. These structural differences could possibly have a major impact of LMX development. Future LMX research should also gather data from more than one rehabilitation organization, regardless of propinquity to other organizations, in an effort to make useful comparisons between organizations, as well as achieve a more representative sample of the targeted organizational context and culture.

Future LMX research should also compare rehabilitation organizations to other traditional organization in which LMX research has been conducted. For example, organizational settings in which LMX research has been conducted other than rehabilitation include banks (Vecchio, 1998), college athletic departments (Sagas et al.,

2004), hospitals (Dunegan et al., 2002), state lottery centers (Harris et al., 2005), public libraries (Green et al., 1996), fire stations (Stringer, 2006), universities (Epitropaki et al., 1999), and electrical companies (Harris et al., 2005). It would be important to know how the LMX relationship develops in these organizations and others compared to traditional rehabilitation organizations. Specifically, future LMX research should investigate what specific antecedent and outcome variables are found to have the closest relationship to LMX, irrespective of the type of organizational setting and individual characteristics.

Future LMX researchers should also examine the relationship between LMX and other antecedent and outcome variables than those targeted for the present study. For example, it would be particularly important to target variables known to be especially problematic in certain rehabilitation organizations, such as turnover and burnout among paraprofessionals (Barrett et al., 1997; Riggar et al., 1984). Example individual and organizational outcomes linked to LMX include subordinate job satisfaction (Beehr et al., 2006), performance (Deluga et al., 1994), subordinate absenteeism (Dierendonck et al., 2001), subordinate work-related stress (Lagace et al., 1993), to name a few. Follow-up LMX studies targeting the aforementioned variables could be conducted in rehabilitation organizations, or elsewhere.

Various LMX data collection instruments need to be targeted for future LMX research. While permission to strictly use the LMX-SLX was given for the present study, it will be important to introduce similar, but different LMX measures depending on the referent and type of research being conducted. For example, George Graen, the author of the LMX-SLX, has developed a number of other LMX-type scales using the supervisor, colleague, or subordinate as the referent. These varied LMX scales can be an especially

flexible data collection instruments depending on the type of LMX research being conducted. In addition, different data collection instruments for other variables, such as OCB and OC, should also be utilized for future LMX research. Using a variety of different data collection instruments will invariably help improve the construct validity of findings.

In any organization, including rehabilitation organizations, P-E fit can potentially impact work-related outcomes for personnel at all levels of the organization. It would be particularly important for future LMX research to determine how P-E fit may impact the variables included in the theoretical model for this study, as well as other variables of interest. In addition, it would be important to determine the differences between P-E fit in a traditional rehabilitation organization and other organizational settings, especially when considering personnel at all levels of the organization. Regardless of the type of organization, the need for congruence between an employees work interests and their work environment has been shown to have a significant impact on organizational outcomes, such as job satisfaction and productivity (Furnham et al., 1984). Therefore, future LMX research needs to incorporate P-E fit when considering important antecedents and consequences known to predict job performance, OCB, and turnover (Hoffman et al., 2006). Future LMX and P-E fit research should also examine key personnel issues (i.e., turnover and burnout) considered more prevalent in rehabilitation organizations than other organizations (Barrett et al., 1997). Especially considering consequences of P-E fit resulting from incongruency have been shown to lead to absenteeism, frustration and stress among personnel. Therefore, it would be important to determine the impact of P-E fit in any organization, as well as its relationship to other

existing personnel issues. Collectively, issues with LMX and P-E fit can potentially make important contributions to future LMX research and organizational behavior-type research, in general.

It will be extremely important for future LMX research to focus on the inclusion of additional demographic variables (i.e., ethnicity) when building a theoretical model and relevant research questions and hypotheses. The inclusion of multicultural issues in future LMX research is additionally important considering the lack of published LMX literature in the area. To effectively study various demographic variables, it will be necessary for future LMX research to have a representative sample of both supervisors and subordinates of varying gender and ethnic backgrounds when determining an appropriate research site. Additional demographic variables to consider for future LMX research could include: educational level, marital status, vocational history, and income.

Considering only three published LMX studies have been conducted within the field of rehabilitation, future LMX research should target gaps in the rehabilitation leadership and administration literature. For example, follow-up LMX research to Larson et al., (2008) could target other variables possibly influencing the relationship between LMX and burnout, as well as make comparisons in different rehabilitation organizations using similar research methods. Another possibility for future LMX research in rehabilitation is to incorporate evidence-based practice into the theoretical model, especially considering the increased need for outcome-oriented rehabilitation in the field today (Chronister, Lynch, Chan, Rosenthal, & Silva Cardoso, 2008). It would be important to determine if subordinates in high quality LMX relationships with their supervisor would be more willing to engage in evidence-based practices while at work. It

will also be important for future LMX research in rehabilitation to focus on the relationships between LMX and the particular individual and organizational outcomes considered the most prevalent in rehabilitation organizations, including turnover, burnout, job satisfaction, OCB, and OC. It will be especially important for future LMX research to investigate the possible relationships between antecedent factors, such as individual characteristics of both supervisors and subordinates that could lead to known individual and organizational outcomes in rehabilitation.

Lastly, it will be important for future LMX research in rehabilitation to target other rehabilitation domains, such as rehabilitation education. Future LMX research in rehabilitation education could focus on the LMX relationship that students have with their academic advisor as it relates to important antecedent and outcome factors important to academia. An example LMX study in rehabilitation education could target doctoral students in rehabilitation graduate programs and their relationship with their major academic advisor, as well as how this relationship impacts the students' academic accomplishments and overall satisfaction with their respective academic program. LMX research of this kind could be aid in the scientific understanding of how the relationships doctoral students have with their major academic advisors affect overall program effectiveness. Considering rehabilitation educational settings help educate and train qualified rehabilitation professionals to work in a multitude of rehabilitation settings, this information could be critically important for the future growth and vitality of the field of rehabilitation.

Table 1.

Variables Used in the Analyses and Their Derivations.

Variable	How Derived				
Perceptions of leader-member exchange (LMX)	Sum of items on the LMX-SLX (TotalLMX)				
Organizational citizenship behavior (OCB)	Sum of items on the OCBS, items 4, 8, and 10 were reverse scored (TotalOCB)				
Organizational commitment (COM)	Sum of items on the OCQ, items 3, 7, 9, 11, 12, and 15 were reverse scored (TotalCOM)				
Dyadic Duration	Dichotomy-Coded as 0 (1-12 months of DD), or 1 (13 or more months of DD) (DyadDich)				
Same-Difference	Coded as 0=different sex subordinate-direct supervisor, 1=same sex subordinate-direct supervisor				
Interaction of Dyadic Duration and OCB	Product of dyadic duration and Total OCB				
Interaction of Dyadic Duration and COM	Product of dyadic duration and Total COM				
Interaction of Same-Difference and OCB	Product of Same-Difference and Total OCB				

Table 2.

Regression Statistics for Research Question 5.

	Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval for B	
Model	В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	37.108	8.718		4.256	.000	19.459	54.757
totalocb	1.293	1.988	.101	.650	.519	-2.732	5.318
DyadDich	-4.008	2.151	290	-1.864	.070	-8.362	.346
(Constant)	22.652	11.198		2.023	.050	037	45.341
totalocb	4.631	2.568	.363	1.804	.079	571	9.833
DyadDich	27.956	16.476	2.023	1.697	.098	-5.428	61.339
intdyocb	-7.553	3.862	-2.303	-1.956	.058	-15.379	.273

Table 3.

Regression Statistics for Research Question 6.

	Unstandardized Coefficients		Standardized Coefficients			95% Confidence	e Interval for B
Model	В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	30.995	3.869		8.011	.000	23.163	38.828
totalcom	2.568	.805	.443	3.190	.003	.938	4.197
DyadDich	-5.214	1.919	377	-2.717	.010	-9.100	-1.329
(Constant)	35.204	4.480		7.857	.000	26.126	44.281
totalcom	1.645	.947	.284	1.737	.091	274	3.564
DyadDich	-19.383	8.362	-1.403	-2.318	.026	-36.325	-2.441
intdycom	2.938	1.690	1.088	1.738	.090	486	6.363

Table 4.

Regression Statistics for Research Question 7.

	Unstandardized Coefficients		Standardized Coefficients			95% Confiden	ce Interval for B
Model	В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	37.108	8.718		4.256	.000	19.459	54.757
DyadDich	-4.008	2.151	290	-1.864	.070	-8.362	.346
totalocb	1.293	1.988	.101	.650	.519	-2.732	5.318
(Constant)	39.149	8.668		4.516	.000	21.585	56.712
DyadDich	-5.016	2.213	363	-2.267	.029	-9.499	533
totalocb	.113	2.099	.009	.054	.957	-4.140	4.366
intsamediffocb	.988	.643	.256	1.537	.133	315	2.291

Table 5.

Regression Statistics for Research Question 8.

	Unstandardized Coefficients		Standardized Coefficients			95% Confiden	ce Interval for B
Model	В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	30.995	3.869		8.011	.000	23.163	38.828
DyadDich	-5.214	1.919	377	-2.717	.010	-9.100	-1.329
totalcom	2.568	.805	.443	3.190	.003	.938	4.197
(Constant)	31.715	3.837		8.265	.000	23.940	39.490
DyadDich	-6.066	1.972	439	-3.076	.004	-10.061	-2.070
totalcom	1.849	.926	.319	1.997	.053	027	3.725
intsamediffcom	.785	.524	.250	1.500	.142	275	1.846

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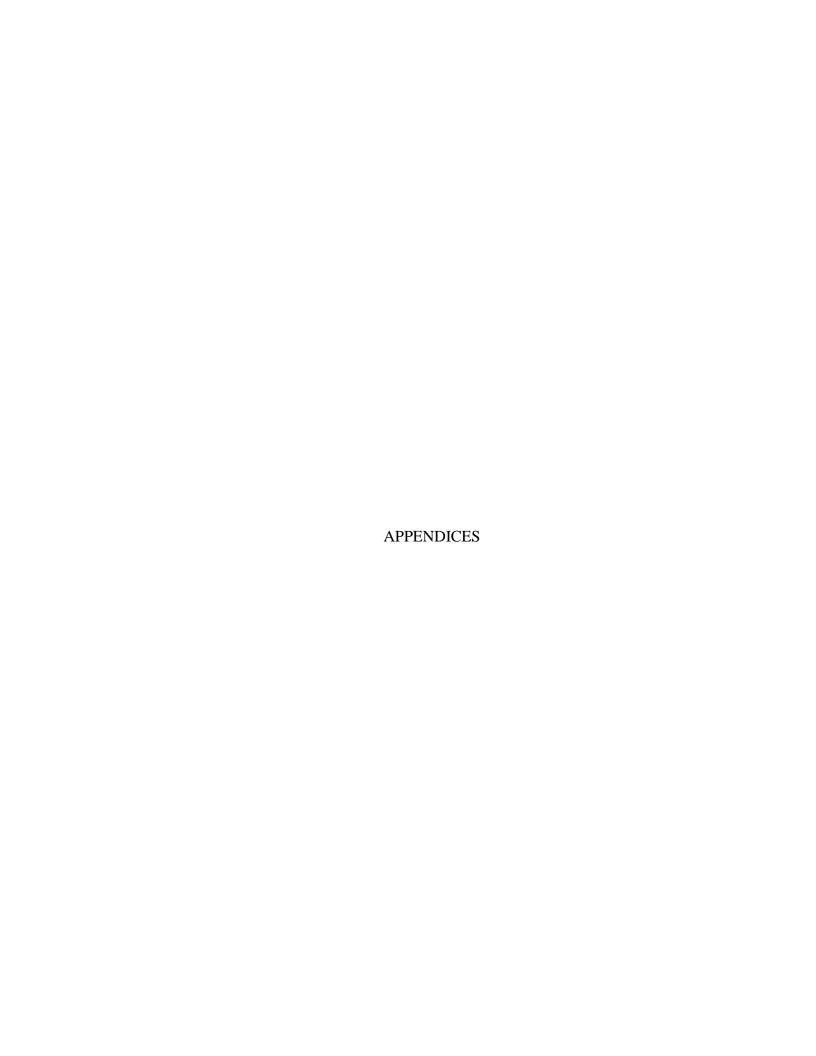
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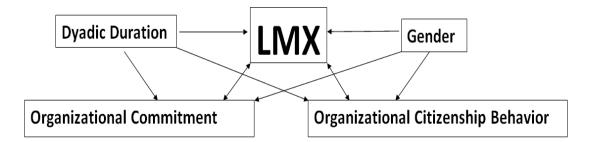
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# APPENDIX A



# APPENDIX B

Demographic Sheet.

	These are a few questions that describe you. Please do not skip this section because they will help us make useful comparisons
1) Gender:	Female: Male:
	f time you have worked for your current direct supervisor: here at Helping Hands Rehabilitation Center.
Years	:: Months:
3) Age (in y	rears):
4) Ethnicity	(Please choose one):
	_ Asian/Pacific Islander _ Black, Non-Hispanic
	_ Black, Non-Thispanic _ Hispanic
	Native American
	White, Non-Hispanic
	Other (specify):
5) Education	on (check the highest degree awarded):
	Less than High School
	_ High School/GED
	_ Undergraduate Degree
	_ Graduate Degree

Thank You!!

# APPENDIX C

# $LMX\text{-}Team\ Leader\text{-}Member\ Exchange\ (LMX\text{-}SLX)\ Scale.$

her que	s questionnaire contains item e at Helping Hands Rehabil estions, the responses are: St ree = 5. The ten questions ar	itation Center-Co crongly Agree = 1	untryside, IL:		For each of the ten
1.	My direct supervisor is sati	sfied with my wo	rk.		
	Strongly Disagree	Disagree	Don't know	Agree	Strongly Agree
	1	2	3	4	5
2.	My direct supervisor will r	epay a favor.			
	Strongly Disagree	Disagree	Don't know	Agree	Strongly Agree
	1	2	3	4	5
3.	My direct supervisor would	d help me with m	y job problems.		
	Strongly Disagree	Disagree	Don't know	Agree	Strongly Agree
	1	2	3	4	5
4.	My direct supervisor will r	eturn my help.			
	Strongly Disagree	Disagree	Don't know	Agree	Strongly Agree
	1	2	3	4	5
5.	My direct supervisor has co	onfidence in my i	deas.		
	Strongly Disagree	Disagree	Don't know	Agree	Strongly Agree
	1	2	3	4	5
6.	My direct supervisor and I	have a mutually l	nelpful relationship.		
	Strongly Disagree	Disagree	Don't know	Agree	Strongly Agree
	1	2	3	4	5
7.	My direct supervisor has tr	rust that I would c	arry my workload.		
	Strongly Disagree	Disagree	Don't know	Agree	Strongly Agree
	1	2	3	4	5
8.	My direct supervisor is one	e of my leaders.			
	Strongly Disagree	Disagree	Don't know	Agree	Strongly Agree
	1	2	3	4	5
9.	My direct supervisor has re	espect for my cap	abilities.		
	Strongly Disagree	Disagree	Don't know	Agree	Strongly Agree
	1	2	3	4	5

10. I have an excellent working relationship with my direct supervisor.

Strongly Disagree	Disagree	Don't know	Agree	Strongly Agree
1	2	3	4	5

### APPENDIX D

Organizational Citizenship Behavior Scale (OCBS).

#### Instructions:

Listed below are a series of statements that represents possible work behaviors that individuals might engage in at work. With respect to your own work behaviors here at Helping Hands Rehabilitation Center, please circle the number below that best describes how characteristic each work behavior is for you.

1. I help other employees with their work when they have been absent.

Very Characteristic		Somewhat Characteristic		Not at all Characteristic	Does Not Apply
5	4	3	2	1	X

2. I exhibit punctuality in arriving at work on time in the morning and after lunch and breaks.

Very Characteristic		Somewhat Characteristic		Not at all Characteristic	Does Not Apply
5	4	3	2	1	X

3. I volunteer to do things not formally required by the job.

Very	· · · · · · · · · · · · · · · · · · ·			Not at all	Does Not	
Characteristic				Characteristic	Apply	
5	4	3	2	1	X	

4. I take undeserved work breaks.

Very		Somewhat		Not at all	Does Not
Characteristic		Characteristic		Characteristic	Apply
5	4	3	2	1	X

5. I take the initiative to orient new employees to the program even though it is not part of my formal job description.

Very Characteristic		Somewhat Characteristic		Not at all Characteristic	Does Not Apply
5	4	3	2	1	X

6. I exhibit attendance at work beyond the norm (e.g., take less days off than most individuals or less than allowed).

Very Characteristic				Not at all Characteristic	Does Not Apply
5	4	3	2	1	X

7. I help others when	their work	load increases (assist oth	ers until the	y get over the hurdles).		
Very Characteristic	Somewhat Characteristic			Not at all Characteristic	Does Not Apply	
5	4	3	2	1	X	
8. I coast toward the	end of the d	lay.				
Very Characteristic		Somewhat Characteristic				
5	4	3	2	1	X	
9. I give advance not	ice if unable	e to come to work.				
Very Characteristic		Somewhat Characteristic		Not at all Characteristic	Does Not Apply	
5	4	3	2	1	X	
10. I spend a great de	al of time i	n personal telephone con	versations.			
Very Characteristic		Somewhat Characteristic		Not at all Characteristic	Does Not Apply	
5	4	3	2	1	X	
11. I do not take unne	ecessary tin	ne off work.				
Very Characteristic		Somewhat Characteristic		Not at all Characteristic	Does Not Apply	
5	4	3	2	1	X	
12. I assist others wit	h their duti	es.				
Very Characteristic		Somewhat Characteristic		Not at all Characteristic	Does Not Apply	
5	4	3	2	1	X	
13. I make innovative	e suggestion	ns to improve the overall	quality of th	ne program.		
Very Characteristic		Somewhat Characteristic		Not at all Characteristic	Does Not Apply	
5	4	3	2	1	X	
14. I do not take extra	a breaks.					
Very Characteristic		Somewhat Characteristic		Not at all Characteristic	Does Not Apply	
5	4	3	2	1	X	

15. I willingly attend functions not required by the organization, but helps in its overall image.

Very Characteristic	Somewhat Characteristic			Not at all Characteristic	Does Not Apply		
5	4	3	2	2 1			
16. I do not spend a	great deal of id	lle time in idle conver	sation.				
Very Characteristic		Somewhat Characteristic		Not at all Characteristic	Does Not Apply		
5	$\boldsymbol{\varLambda}$	3	2	1	X		

### APPENDIX E

Organizational Commitment Questionnaire (OCQ).

### Instructions:

Disagree

1

Disagree

2

Disagree

3

Agree

6

7

Agree

5

Agree 4

Listed below are a series of statements that represent possible feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about Helping Hands Rehabilitation Center, please indicate the degree of your agreement or disagreement with each statement by circling one of the seven alternatives below each statement.

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.

org	ganization be	successful.					
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
2.	I talk up this	s organization to my	friends as a	great organizati	on to work	for.	
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
3.	I feel very l	ittle loyalty to this c	rganization.				
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
4.	I would acc	ept almost any type	of job assign	ment in order to	keep work	ing for this organ	ization.
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
5.	I find that m	ny values and the or	ganization's	values are very	similar.		
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
6.	I am proud	to tell others that I a	m part of thi	s organization as	s long as the	e type of work we	ere similar.
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor	Slightly Agree	Moderately Agree	Strongly Agree

7.	I could just as well be working for a different organization as long as the type of work were similar.							
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree	
	1	2	3	4	5	6	7	
8.	This organizati	on really inspires	the very bes	st in me in the w	ay of job pe	rformance.		
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree	
	1	2	3	4	5	6	7	
9.	It would take v	ery little change i	n my presen	t circumstances	to cause me	to leave this org	anization.	
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree	
	1	2	3	4	5	6	7	
	. I am extremel ne I joined.	y glad that I chos	e this organi	zation to work f	for over other	ers I was consider	ing at the	
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree	
	1	2	3	4	5	6	7	
11.	. There is not to	oo much to be gai	ned by stick	ing with this org	ganization ir	definitely.		
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree	
	1	2	3	4	5	6	7	
	12. Often, I find it difficult to agree with this organization's policies on important matters relating to its employees.							
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree	
	1	2	3	4	5	6	7	
13.	. I really care a	about the fate of the	his organiza	tion.				
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree	
	1	2	3	4	5	6	7	

14. For me this is the best of all possible organizations for which to work.

Strongly	Moderately	Slightly	Neither Disagree nor Agree	Slightly	Moderately	Strongly
Disagree	Disagree	Disagree		Agree	Agree	Agree
1	2	3	4	5	6	7

15. Deciding to work for this organization was a definite mistake on my part.

Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree
1	2	3	4	5	6	7

#### APPENDIX F

Verbal Script-Group Administered Questionnaire Method.

# Verbal scripts to be read to each voluntary research participant:

# **Group-Administered Questionnaire Method**

"Hello! May I have everyone's attention please? My name is James Soldner and I am a doctoral candidate within the Rehabilitation Institute at Southern Illinois University Carbondale. I am interested in conducting research here at Helping Hands. At this time I would like to request your voluntary participation in a research study about supervisory practices. For starters, please be aware that all personal information used as part of this research study will be kept anonymous to the highest degree possible and kept completely confidential. Also, your voluntary participation in this research study will in no way adversely impact your current employment here at Helping Hands.

I will distribute some surveys that will help me learn about the individual relationship that each of you have with your current direct supervisor here at Helping Hands, and to learn about possible feelings you may have about the organization for which you are now working, as well as possible work behaviors you may engage in while at working here. The information collected from your voluntary participation in this study will help me to understand how the relationship each of you have with your current direct supervisor may affect the overall effectiveness of this particular organization. If you agree to participate in this research study you will be asked to read a cover letter, read and sign a consent form, and complete four brief questionnaires.

Participant numbers and reference numbers will be used instead of your names, to anonymously link each of you to your current direct supervisor. Voluntary participation in this study will involve anywhere between 20-45 minutes of your time. For those interested in participating, I will pass out a research packet with all research-related materials for each of you to complete. The research packet is enclosed in an outside envelope that looks like this [Hold up envelope]. This outside envelope has your name on it; it does not need to be returned to me. Upon completion of all the material included in the research packets, please place all completed research-related materials into the additional folder found inside the research packet that looks like this [Hold up folder].

This additional folder has only a participant number and reference number on the outside of the folder. Again, this is to assure that your voluntary participation is confidential and anonymous.

Once all completed materials are placed in this additional folder, please promptly return the folder to me. Please do not discuss your answers with any other staff members employed at Helping Hands Rehabilitation Center. If you have any question at this time, please raise your hand and I will answer each of your questions one at a time. Thank you ahead of time for your participation in this research study."

#### APPENDIX G

Verbal Script-Household-Drop Off Questionnaire Method.

# Verbal scripts to be read to each voluntary research participant:

# Household-Drop Off Questionnaire Method

"Hello! May I have everyone's attention please? My name is James Soldner and I am a doctoral candidate within the Rehabilitation Institute at Southern Illinois University Carbondale. I am interested in conducting research here at Helping Hands. At this time I would like to request your voluntary participation in a research study about supervisory practices. For starters, please be aware that all personal information used as part of this research study will be kept anonymous to the highest degree possible and kept completely confidential. Also, your voluntary participation in this research study will in no way adversely impact your current employment here at Helping Hands.

I will distribute some surveys that will help me learn about the individual relationship that each of you have with your current direct supervisor here at Helping Hands, and to learn about possible feelings you may have about the organization for which you are now working, as well as possible work behaviors you may engage in while at working here. The information collected from your voluntary participation in this study will help me to understand how the relationship each of you have with your current direct supervisor may affect the overall effectiveness of this particular organization. If you agree to participate in this research study you will be asked to read a cover letter, read and sign a consent form, and complete four brief questionnaires.

Participant numbers and reference numbers will be used instead of your names and to anonymously link each of you to your current direct supervisor. Voluntary participation in this study will involve anywhere between 20-45 minutes of your time. For those interested in participating, I will pass out a research packet with all research-related materials for each of you to complete. The research packet is enclosed in an outside envelope that looks like this. This outside envelope has your name on it and is yours to keep at the end of your participation in this research study; it does not need to be returned to me. Upon completion of all the material included in the research packets, please place all completed research-related materials into the additional folder found

inside the research packet that looks like this. This additional folder has only a participant number and reference number on the outside of the folder. Again, this is to assure that your voluntary participation is confidential and anonymous.

If you are willing to voluntarily participate in this research study now, you can return the enclosed folder to me promptly upon completion. You may also complete the research packet anytime over the course of today's work shift, anytime today that is most convenient for you. If you would rather voluntarily participate over the course of today's work shift instead of right now, please leave all completed research-related materials in the enclosed folder and place the folder into the box I am holding now. Again, the completed research packets will be included in the enclosed folder that only a participant number and reference number on the outside of the folder, therefore your voluntary participation will remain confidential and anonymous. This box will be kept in the staff office at all times. The box is clearly labeled research packets. Please do not discuss your answers with any other staff members employed at Helping Hands Rehabilitation Center. If you have any question at this time, please raise your hand and I will answer each of your questions one at a time. Thank you ahead of time for your participation in this research study."

#### VITA

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Dissertation Title:

Relationships among Leader-Member Exchange, Organizational Citizenship Behavior, Organizational Commitment, Gender, and Dyadic Duration in a Rehabilitation Organization

Major Professor: William Crimando

#### **Publications:**

- Riggar, T. F., Crimando, W., Dunlap, P. N., & Soldner, J. L. (2008). Rehabilitation administration literature: 30+ years of role and function. *Monograph of the National Clearinghouse of Rehabilitation Training Materials, 1,* 1-409.
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