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School Social Work Leadership Self-Efficacy and Perceptions of Multidisciplinary Collaboration

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This is to certify that the doctoral study by

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Abstract

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MSW, University of New England, 2013

BSW, Dana College, 2006

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Social Work

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Abstract

School social workers employ a variety of interventions to meet the needs of students, staff, and families. Serving as the vital link between the school, student, and community, school social workers are well positioned for leadership opportunities. Yet, school social workers continue to be marginalized and under recognized for their leadership capabilities and unique contributions to interdisciplinary collaboration in the school setting. Informed by transformational leadership theory and self-efficacy theory, this study was conducted to examine the relationship between leadership self-efficacy and perceptions of interdisciplinary collaboration of school social workers as measured by the leader efficacy questionnaire and the index of interdisciplinary collaboration. For this quantitative, cross-sectional, email-based survey study with a correlational design, self-reported information was gathered from 144 school social workers representative of the 11 states involved in the Midwest School Social Work Council. A Pearson correlation found a statistically significant positive relationship between leadership and interdisciplinary collaboration. Findings from multiple linear regression revealed that, controlling for the effects of school social work experience, leadership was found to significantly predict interdisciplinary collaboration. Level of experience was not found to impact interdisciplinary collaboration. The results from this study contribute to the foundation of knowledge related to school social work leadership, having implications for social work education and social change. Furthermore, the results support the need for increased social work education and training related to leadership and interdisciplinary collaboration, specifically contextualized to school social work practice.

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Dedication

I dedicate this work to my husband, Dustin, for his endless love, support, inspiration, and encouragement to pursue my dreams. This work is also dedicated to my children, Mackenzie, Elijah, and Benjamin. You have all made so many sacrifices for me to achieve my dreams. I wish that you have the same opportunities in your lives, and I promise to always support and love you the way that you supported me.

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My family has sacrificed greatly for me to achieve this dream. I cannot find the words to adequately express my gratitude for my husband, Dustin. Thank you for inspiring and empowering me to be the best version of myself. I would not be the person I am today without your patience, understanding, and love. To my children, Mackenzie, Elijah, and Benjamin, thank you for making me a stronger, better, and more fulfilled person. It is an honor to be your mother, and I love you with all my heart.

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Introduction

One in every six children has a diagnosable mental health or behavioral condition, and many of them do not have access to mental health services (Cree et al., 2018). The prevalence of childhood mental health and behavioral concerns requires schools to become increasingly more involved with mental health interventions (Lyon et al., 2016). Childhood mental health problems impact educational attainment, necessitating a full range of school-based interventions. This often requires the services, support, and collaboration of multiple professionals in varying disciplines. School social workers employ strategies to serve as the link between school, student, home, and community, placing social workers in a unique position to serve in leadership capacities (Sherman, 2016). Nonetheless, school social workers do not receive recognition for the leadership capabilities they bring to school-based interdisciplinary teams.

The goal of this quantitative study was to explore the relationship between leadership self-efficacy of school social workers and their perceptions of interdisciplinary collaboration. Although there is research related to social work leadership, there is a lack of contextually relevant literature pertaining to school social work leadership (Elswick, Cuellar, Williams, et al., 2018; Peters, 2018). There is a wealth of research related to interdisciplinary collaboration in multiple contexts, particularly healthcare (Asarnow et al., 2015; Blacker et al., 2016; Lyon et al., 2016; Miller, Coleman, & Mitchell, 2018; O'Neil & Black, 2017; Yu, Kolko, & Torres, 2017). But there is a gap in literature related to the relationship of school social worker self-efficacy to perceptions of interdisciplinary

collaboration. Uncovering knowledge related to school social worker leadership can enhance social work practice in schools, providing many opportunities for social change. Additionally, this study has the potential to influence social work training and education to better prepare social workers for collaboration with educational systems.

This chapter provides an overview of information, knowledge, and concepts related to this study. The problem, purpose, nature, and significance of the study are identified and explored to uncover gaps in practice knowledge relevant to this study. Theoretical framework, research questions, and hypotheses are presented and explained. Additionally, the key terms are defined, and the assumptions and limitations are described.

Problem Statement

School social workers play a critical role in communication and facilitation between school, home, and community; they serve as liaisons to maximize access to resources and interventions across multiple domains (Kelly et al., 2015; Sherman, 2016). Often involved in therapeutic case management, an isolating role in schools, school social workers face challenges related to role ambiguity, marginalization, and devaluation (Gherardi & Whittlesey-Jerome, 2018; Teasley, 2018). School social workers operate as task workers in the host environment of the school, rather than having an integrated role that contributes to the educational system (Beddoe, 2019; Gherardi & Whittlesey-Jerome, 2018; Sugrue, 2017). These factors can lead to a lack of recognition for the potential contributions and leadership capabilities and a decreased professional self-efficacy of the

school social worker in the context of interdisciplinary collaboration in the educational setting (Brake & Kelly, 2019; Sherman, 2016).

Most childhood behavioral and mental health problems are identified at school, necessitating effective coordination of services and interdisciplinary collaboration in the school setting (Lyon et al., 2016). Schools present many leadership opportunities for social workers to integrate knowledge, skills, and abilities that influence educational policy and coordination of services; however, perceptions of interdisciplinary collaboration between educators and school social workers create a barrier to reaching this potential (Gherardi & Whittlesey-Jerome, 2018). Multidisciplinary collaboration is a characteristic of leadership practice for school social workers, yet many school social workers feel ill-prepared to negotiate their identity and role in the school setting, leading to role conflict, frustration, power imbalances, and feelings of ineffectiveness (Beddoe, 2019; Elswick, Cuellar, Williams, et al., 2018; Gherardi & Whittlesey-Jerome, 2018).

Nature of the Study

This quantitative cross-sectional email-based survey study with a correlational design was used to gather self-reported information from school social workers in 11 states: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin. Each of these states has a local chapter of the School Social Work Association and participates in the Midwest School Social Work Council (MSSC) representing their respective state association. The purpose was to investigate the relationship between school social worker self-efficacy and their perceptions of interdisciplinary collaboration. SPSS data analysis software was used to determine

statistically significant correlations between these variables, which is appropriate for this research due to the correlational design. Quantitative analysis allows for measuring correlative data between multiple variables in large sample sizes. This produces more generalizable results with a high potential to impact social change related to school social work leadership practice.

Key Terms

The primary terms used in this study are defined as follows:

School Social Worker: A graduate-level social worker who practices in a school setting. School social workers use a variety of practice approaches to provide resources, support, and services that connect the student, family, school, and community (Avant & Swerdlik, 2016; Richard, Monroe, & Garand, 2019; Sherman 2016).

Interdisciplinary Collaboration: Often used interchangeably with *multi-disciplinary collaboration*, *interprofessional collaboration*, and *transdisciplinary collaboration*. For this study, *interdisciplinary* refers to the professional interdependence of multiple disciplines to integrate and synthesize knowledge (Bronstein, 2002).

Transformational Leader: A leadership style that focuses on the relational process of inspiring and motivating others to transcend their self-interests to achieve collective goals (Bass, 1990; Bass & Riggio, 2006; Burns, 1978). A transformational leader attracts, motivates, intellectually stimulates, and mentors others to empower them for enhanced performance and promote group cohesion (Bass, 1985; Bass, 1990; Bass & Avolio, 1994).

Self-efficacy: The personal belief that one possesses the ability to successfully perform a desired task and address events that impact lives (Bandura, 1977, 1993; Bandura & Locke, 2003).

Leader Self-efficacy: A subcategory of self-efficacy that can be defined as personal beliefs related to knowledge, skills, and abilities related to the leadership of groups (Bobbio & Manganelli, 2009; Hannah, Avolio, Luthans, & Harms, 2008).

Purpose Statement

The purpose of this quantitative study was to examine the relationship between school social worker leadership qualities and perceptions of interdisciplinary collaboration. Specifically, this study intended to explore the relationship between school social worker leadership self-efficacy, or perceptions of capabilities, and perceptions of collaboration in the school setting. Through analyzing the relationship between the independent variables that contribute to school social worker leadership self-efficacy and the dependent variable of perception of interdisciplinary collaboration, the results of this study have the potential to uncover the specific characteristics of leadership self-efficacy and how those characteristics relate to the perception of interdisciplinary collaboration.

Current school social work practice models indicate the need for increased leadership skills in practice, yet there is a lack of research related to school social work leadership (Elswick, Cuellar, & Mason, 2018; Elswick, Cuellar, Williams, et al., 2018; Peters, 2018). To gain a better understanding of the potential contributions of social workers in K–12 education, in this study, I highlight the significance of social workers' knowledge and skill sets that lend to leadership in schools (Gherardi & Whittlesey-

Jerome, 2018). The results of this study contribute to social work practice by building on knowledge uncovered in previous studies that demonstrate deficits in social work education, coursework, professional learning, and skill-building related to leadership and interdisciplinary collaboration (Beddoe, 2019; Elswick, Cuellar, Williams, et al., 2018, Peters, 2018).

Research Questions and Hypotheses

This quantitative study sought to answer the following research questions:

RQ1: What is the relationship between school social worker leadership self-efficacy as measured by the leader efficacy questionnaire (LEQ) and perceptions of interdisciplinary collaboration as measured by the index of interdisciplinary collaboration (IIC)?

$H_0$1: There is no positive relationship between the school social worker leader self-efficacy as measured by the LEQ and perceptions of interdisciplinary collaboration as measured by the IIC.

H_a1: There is a positive relationship between the school social worker leader self-efficacy as measured by the LEQ and perceptions of interdisciplinary collaboration as measured by the IIC.

RQ2: What is the relationship between school social worker level of experience, measured in years, and perceptions of interdisciplinary collaboration as measured by the IIC?

$H_0$2: There is no positive relationship between school social worker level of experience, measured in years, and perceptions of interdisciplinary collaboration as measured by the IIC.

H_a2: There is a positive relationship between school social worker level of experience, measured in years, and perceptions of interdisciplinary collaboration as measured by the IIC.

RQ3: What is the extent to which school social worker level of experience, measured in years, and school social worker leader self-efficacy as measured by the LEQ, predict perceptions of interdisciplinary collaboration as measured by the IIC?

$H_0$3: There is no positive relationship between school social worker level of experience, measured in years, school social worker leader self-efficacy as measured by the LEQ, and perceptions of interdisciplinary collaboration as measured by the IIC.

H_a3: There is a positive relationship between school social worker level of experience, measured in years, school social worker leader self-efficacy as measured by the LEQ, and perception of interdisciplinary collaboration as measured by the IIC.

Significance of the Study

Social workers are in a unique position to become organizational leaders taking on administrative and advocacy roles. However, little research has been conducted evaluating the context of school social work leadership, specifically leadership in interdisciplinary collaboration (Elswick, Cuellar, Williams, et al., 2018). Engaging in

complex care coordination and addressing psychosocial needs, school social workers are positioned to become clinical leaders of interdisciplinary collaboration (Dobrof, Bussey, & Muzina, 2019). Leadership is considered an important quality that contributes to a successful school social worker; therefore, this research effectively fills a gap in literature related to school social work leadership in interdisciplinary collaboration (Teasley, 2018).

Because of the increased prevalence and early onset of childhood mental health issues, there is a need for targeted, evidence-based early interventions related to social, emotional, developmental, and behavioral responses while reducing barriers to service delivery (Girio-Herrera, Ehrlich, Danzi, & La Greca, 2019; Lyon et al., 2016; Tully et al., 2019). Although most often used in the primary care setting and physician led, interdisciplinary collaboration is identified as the most effective model to improve outcomes with high-risk children by increasing access, coordination, and quality of care (Asarnow et al., 2015; Lyon et al., 2016; O'Neil & Black, 2017; Yu et al., 2017). Schools have access to nearly all children, placing schools in a unique and compelling position to be the catalyst for interdisciplinary collaboration led by school social workers, drawing from their abilities, knowledge, and skills that contribute to leadership (Lyon et al., 2016).

Increasing an understanding of the relationship between school social worker leadership self-efficacy and perceptions of collaborative care will inform the field of social work and potentially influence further research on the school social worker role in school-based collaboration. Furthermore, this research contributes to informing school and community leaders regarding school social work practices and potential barriers to

effective school-based interdisciplinary collaboration providing a catalyst for social change. This information is valuable to supporting school social work practice, affirming that school social workers are essential to student success while recognizing their significant contributions to the educational setting. The goal was to build on research to develop school-based collaborative care policies, systems, data-based decision-making protocols, and best practices (Lyon et al., 2016).

Theoretical Framework

The purpose of this study was to explore the relationship between social worker leadership self-efficacy and perceptions of interdisciplinary collaboration. I hypothesized that leadership self-efficacy contributes to the perception of interdisciplinary collaboration. Therefore, this study is grounded in transformational leadership theory and self-efficacy theory.

Transformational Leadership Theory

Transformational leadership theory is relevant and inclusive of social work leadership and leadership in interdisciplinary collaboration (Rearick, 2007). Driving this study is the ideology that school social workers are more effective in interdisciplinary collaboration with shared and nonhierarchical leadership that focuses on partnerships that lend to increased performance, accountability, and positive change (Harris & Mayo, 2018). Derived from transformational leadership theory is the engaging leadership model, which allows a leader to retain ethical values and engage in supportive relationships with others in a collective, innovative, and change orientated group process (Harris & Mayo, 2018).

The foundation of transformation leadership theory is influenced by Burns (1978), who defined leadership as a process of creating relationships that encourage actions that best use their values and motivation for the good of others. Bass (1997) expanded this to include that transformational leaders demonstrate the ability to transcend self-interests to motivate others to higher-level outcomes. Embracing the ethical values, collaboration, collective leadership, trust, and respect central to social work practice, this framework allows for a leader to motivate, coach, and encourage innovation toward common goals, therefore promoting a higher level of performance, increased relationships, and improved outcomes (Harris & Mayo, 2018; Jung & Sosik, 2002; Rearick, 2007).

Self-Efficacy Theory

Leader self-efficacy contributes to transformational leadership, suggesting that a leader with higher self-efficacy is more able to persuade increased performance and innovation in others (Hesbol, 2019). Adewale, Jamil, and Khadijah (2019) found that leader self-efficacy and motivation to change have a relationship with the behaviors of others in a group. Therefore, self-efficacy functions as a bridge between self-perception, behaviors, and performance, suggesting that increased self-efficacy lends to cognitive mediating of actions (Bandura, 1982).

Self-efficacy is the belief that one is capable of the activities required to achieve their goals, providing a foundation for leadership development (Bandura, 1997). Leadership self-efficacy includes efficacy beliefs that contribute to successful leadership through confidence in knowledge and skills to motivate others and mediate conflict while being engaged and flexible to demands (Bobbio & Manganelli, 2009; Hannah et al.,

2008). Examining school social worker self-efficacy and the perceptions of interdisciplinary collaboration is significant because of the relationship of self-confidence to achieve outcomes (Tompsett et al., 2017). Based on the assumptions of transformational leadership theory and the concept of self-efficacy, I sought to find evidence supporting the hypothetical relationship that a school social worker with an increased level of self-efficacy will perceive a higher level of interdisciplinary collaboration.

There is a lack of recognition for the potential contributions of school social workers, often leading to decreased confidence in leadership capabilities and multidisciplinary collaboration (Brake & Kelly, 2019; Sherman, 2016). The purpose of this study was to examine the relationship between school social worker leader self-efficacy and the perception of interdisciplinary collaboration. Self-efficacy is considered a psychological attribute indicative of transformational leadership behaviors and effective use of interdisciplinary skills (Bandura, 1997; Hannah, et al., 2008; Mason, Griffin, & Parker, 2014; Paglis & Green, 2002). Therefore, a school social worker with increased self-efficacy is placed in a position to provide transformational leadership in the context of school-based interdisciplinary collaboration (Hesbol, 2019).

Self-efficacy theory and transformational leadership theory constitute the conceptual framework in this quantitative study guiding the collection and interpretation of data. An individual with an increased level of self-efficacy is more confident in their knowledge, skills, and abilities, which is characteristic of transformational leadership (Bandura & Locke, 2003; Mason et al., 2014). Furthermore, a transformational leader

promotes an inclusive, empowering environment that is compatible to social work practice and aligns closely to social work values when compared to other leadership theories (McDermott & Bawden, 2017; Peters, 2018). These theories contribute to providing insight to the beliefs, attributes, and behaviors that influence the success of a school social worker in the capacity of leadership and interdisciplinary collaboration (Bandura, 1997; Bobbio & Manganelli, 2009; Mason et al., 2014; Ng & Chan, 2008).

Values and Ethics

The foundation of ethical social work practice involves the responsibility and commitment to the well-being, safety, privacy, and self-determination of the client (National Association of Social Workers [NASW], 2017). Client-centered values impact all facets of social work practice, shaping the principles and guidelines for professional social work practice and conduct (NASW, 2017). Often overlooked is the relationship between leadership and social work principles, values, and ethics, especially within the context of interdisciplinary collaboration. School social workers not only provide direct services to students and families, but also serve in roles that support students, families, and educators through collaboration, education, advocacy, and social justice (NASW, 2012).

These roles often lend to leadership opportunities related to interdisciplinary collaboration. Although not explicitly stated or defined, the ethical standard of interdisciplinary collaboration necessitates the school social worker to possess and demonstrate leadership skills (NASW, 2012, 2017). Ethical leadership qualities contribute to reciprocal collaborative relationships that encourage innovative work

behavior, highlighting the need for social work education focused on leadership and interdisciplinary collaboration skills (Elswick, Cuellar, Williams, et al., 2018; Jones & Phillips, 2016; Peters, 2018; Zahra, Ahmad, & Waheed, 2017).

This commitment to interdisciplinary collaboration necessitates that social workers not only be aware of the values and ethics of other professions but also be proficient with the social work core values and code of ethics (Jones & Phillips, 2016). Embedded in the NASW Code of Ethics (2017) and the NASW Standards for School Social Work Practice (2012) are the values and principles that guide ethical decision making and functioning as part of an interdisciplinary team. Furthermore, social workers often provide valuable information, insight, and understanding that contribute to effective interventions at the macro, mezzo, and micro level of school social work practice that impact the well-being of students (Ayasse & Stone, 2015; Elswick, Cuellar, Williams, et al., 2018; NASW, 2012; Peters, 2018; Sherman, 2016).

Review of Professional Literature

The purpose of this literature review is to explore current research on school social work leadership, explicitly research related to multidisciplinary collaboration, self-efficacy, and transformational leadership. Walden University Library, Google Scholar, and the University of Nebraska at Omaha Library were used to access literature. The Thoreau multiple database search through Walden University was the primary source for the literature in this review. When faced with challenges to find literature through that method, Google Scholar was used to find additional literature. Generally, this review focused on recent literature published since 2015. These findings were assessed and

verified as peer-reviewed and then located through Walden University Library and the library at the University of Nebraska at Omaha. More dated literature was included when relevant and appropriate.

Literature Search Strategies

Multiple search terms were used to access literature to uncover relevant and significant literature that spans across all terminology. Multidisciplinary collaboration, self-efficacy, and transformational leadership have numerous, varying, and interchangeable terms that were explored in this literature review. Use of multiple search terms assisted with uncovering essential information related to this study. In order to uncover information related to interdisciplinary collaboration, self-efficacy, and transformational leadership, the literature search included the following terms and phrases: *interdisciplinary collaboration, multidisciplinary collaboration, transdisciplinary collaboration, teamwork, problem-solving team, collaborative care, self-efficacy, self-perception, self-confidence, self-esteem, transformational leadership, school social work leadership, transformational management,* and *transformational leadership theory*.

During the process, search terms were expanded to uncover relevant literature in multiple contexts, which provided a thorough review of pertinent research and knowledge. Throughout this literature review, over 150 peer-reviewed articles were evaluated, and several unavailable texts were requested through the library.

History of School Social Work

The origins of school social work practice in the United States date back nearly a century, including varying roles that provided a link between school, home, and community (Elswick, Cuellar, Williams, et al., 2018; Gherardi, 2017; NASW, 2012; Sherman, 2016). Visiting teachers set the foundation of school social work practice. These first school social workers were socially aware, policy-driven, educated, middle-class women in the early 20th century with the desire to serve the public; however, they were challenged with not being seen as professionals (Gherardi, 2017; Shaffer, 2006; Sugrue, 2017). Visiting teachers' tasks are similar to the functions of modern-day school social workers, including school-based interventions, collaboration, resource allocation, and providing connections in the community (Sugrue, 2017).

Early school social work history is marked with the emergence of an ecological model of practice, which identifies the core social work functions (Shaffer, 2006). In the early 1920s, visiting teachers, the first era of school social workers, were responsive to issues related to attendance, behaviors, and discipline; these individuals functioned as the link between home, school, and community (Gherardi, 2017; Shaffer, 2006; Sherman, 2016). These practices were greatly influenced by social problems and policy and compulsory attendance laws and inclusion, providing a foundation for practice and opportunities for professional growth and role expansion (Ayasse & Stone, 2015; Gherardi, 2017).

Politics and social culture historically have influenced the role and function of the school social worker, effectively dictating activities, tasks, and interventions (Sullivan,

2016). These factors initiated a shift from a case management role in the 1940s to a more clinical role in the 1960s and 1970s in response to movements advocating for disability and civil rights (Gherardi, 2017; Sherman, 2016). There was yet again another shift back to a more ecological practice approach in the 1980s and 1990s with an increase in social problems related to violence, addiction, and pregnancy that contributed to poor educational outcomes (Gherardi, 2017). Special education and school reform policies influenced school social work practice, bringing significant movement in the early-to-mid 2000s toward organization and structure of practice in the form of practice models (Ayasse & Stone, 2015; Gherardi, 2017; Kelly et al., 2015; NASW, 2012; Richard et al., 2019).

In recent years, U.S. scholars have called for reform in school social work practice in favor of establishing a national model, citing gaps between ideal and actual school social work practice (Kelly et al., 2015; NASW, 2012; Phillippo, Kelly, Shayman, & Frey, 2017). Recent changes, most notability implementation of multitiered systems of support (MTSS), created an opportunity to bring together ecological and clinical models into a more comprehensive, integrated school social work practice model (Ayasse & Stone, 2015; Lyon et al., 2016; Phillippo et al., 2017). This increased opportunities for leadership in the school social worker role and provided a sense of clarity to an evolving field of practice (Avant & Swerdlik, 2016; Elswick, Cuellar, Williams, et al., 2018; Gherardi, 2017; Kelly et al., 2015; Peters, 2018; Richard et al., 2019). Although school social work practice is highly influenced by social and political agendas, there is often a lack of clarity in regards to practice implementation of such policies, further necessitating

school social workers to assume an active leadership role in multidisciplinary collaboration (Ayasse & Stone, 2017; Crutchfield & Richard, 2016; Miller et al., 2018; Richard et al., 2019).

School Social Work Purpose/Role

School social workers use a variety of practice approaches to provide resources, support, and services to connect the student, family, school, and community (Avant & Swerdlik, 2016; Richard et al., 2019; Sherman, 2016). The evolution of the school social work role indicates that leadership is a discrete function of school social work practice (Sullivan, 2016). These activities aim at supporting the physical, social, emotional, and mental health of students (Brake & Kelly, 2019).

Unfortunately, the role of school social worker is complicated by the varying functions influenced by politics, population, administration, and caseload size (Bent-Goodley, 2018; Gherardi & Whittlesey-Jerome, 2017; Lyon et al., 2016; Phillippo et al., 2017; Richard et al., 2019; Teasley, 2018). These variables, combined with inconstancies and fragmented services, impact perceived effectiveness and confuse social workers, educational professionals, and the community (Gherardi & Whittlesey-Jerome, 2018; Kelly et al., 2015; Richard et al., 2019; Sugrue, 2017). Therefore, it is significant to develop a better understanding of the unique challenges faced by school social workers

Host setting. School social workers specialize practice in a host setting, positioned as minorities in complex and evolving educational systems and faced with challenges of navigating the social work role while negotiating recognition for their professional status and contributions (Beddoe, 2019; NASW, 2012; Sugrue, 2017). Many

social workers are faced with the challenges of expanding practice into healthcare, governmental agencies, law enforcement, criminal justice, politics, and schools. These environments, or host settings, are dominated, defined, and led by those who are not social workers; frequently, these settings are devoid of other social workers or have small departments within a much larger organization (Bronstein, 2002; Swelfach, 2019).

Teasley (2018) suggested that school social workers must think strategically and become leaders of innovation and collaboration in the host setting of an educational system. Social workers can be an asset within a host setting, offering a unique, broader perspective to complex host environments with competing priorities and goals (Ambrose-Miller & Ashcroft, 2016; Dobrof et al., 2019; Sherman, 2016). But this can be problematic, exacerbated by a misunderstanding of the school social work purpose due to inconsistent roles and expectations and lack of clarity with functions related to policy-driven initiatives (Bent-Goodley, 2018; Gherardi & Whittlesey-Jerome, 2017; Lyon et al., 2016; Phillippo et al., 2017; Teasley, 2018). Ultimately, this leads to confusion, role vulnerability, problems with professional legitimization, and underutilization of social workers who have proven to be an effective resource (Brake & Kelly, 2019; Crutchfield & Richard, 2016; Gherardi & Whittlesey-Jerome, 2017; Richard et al., 2019; Sherman, 2016; Sugrue, 2017; Teasley, 2018).

Role ambiguity. Under the umbrella of social work practice, the school social worker serves as the link between school, student, family, and community by mitigating social and psychological barriers to educational attainment (Beddoe, 2019; Elswick, Cuellar, Williams, et al., 2018; NASW, 2012). Serving as this liaison, school social

workers provide essential communication and facilitation for optimal access to resources, service delivery, and interventions (Kelly et al., 2015; Sherman, 2016). Thus, school social workers become versatile, flexible, adaptable, and multitalented, causing notable differences in role and function that are often influenced by administrators who have little knowledge of social work practice (Avant & Swerdlik, 2016; Isaksson & Sjostrom, 2017; Richard et al., 2019; Webber, 2018). Additionally, school social workers are tasked with integrating and aligning their knowledge, skills, and values in their role within the educational system (Gherardi & Whittlesey-Jerome, 2017).

In the literature review that follows, I highlight school social worker tasks including psychosocial assessment, case management, clinical interventions, and advocacy that contributes to current practice model goals of evidenced-based behavioral/mental health services, positive school climate, and increased access to resources (Gherardi & Whittlesey-Jerome, 2017; Kelly et al., 2015; Webber, 2018). Even with the development of school social work models, school social workers continue to experience role ambiguity because of caseload size, administrational whims, and school needs (Brake & Kelly, 2019; Gherardi & Whittlesey-Jerome, 2017; Richard et al., 2019). Conversely, narrowing the description of the school social work role decreases visibility and ability of school social workers to meet the needs of all students, families, and educational systems (Sherman, 2016).

School social work activities. The school social work role includes activities that initiate, assess, consult, advocate, provide community outreach, and connect to internal and external resources (Stone & Charles, 2018). By engaging in these activities, the

school social worker can provide complex case management that addresses psycho-social needs of students and families (Dobrof et al., 2019). Most often, the school social worker operates in an isolated task-orientated fashion dictated by the school environment rather than collaboratively integrating in school culture (Beddoe, 2019; Gherardi & Whittlesey-Jerome, 2018; Sugrue, 2017). Richard et al. (2019) and Brake and Kelly (2019) reported that caseload size is typically the most significant barrier to balancing effective service delivery. They found that this impacts the quality and satisfaction of interventions, and ultimately defines the social work role (Brake & Kelly, 2019; Richard et al., 2019).

Scholars of recent literature identified the need for social workers to expand their narrowly defined roles and engage in practices that integrate systematic mental health care delivery in schools, prevention, and school-wide interventions that impact the majority of students (Ciffone, 2017; Kelly et al., 2016). Avant and Swerdlik (2016) found that most school social workers reported an increased role expansion and role change after the implementation of multi-tiered system of supports (MTSS) and more systematic methods for behavioral and mental health interventions. Similarly, Avant and Lindsey (2016) found that school social workers reported a dramatic change in their responsibilities, citing increased leadership and interdisciplinary collaboration activities after the implementation of MTSS. Scholars championing educational reform and school social work models support school-wide prevention and efforts to impact larger numbers of students through advocacy, education, and resource allocation rather than a primary focus on students already identified and receiving intensive supports (Brake & Kelly, 2019; Ciffone, 2017).

The school social worker role is projected to continue to expand with the potential to include functions such as organizational consultants and experts of interventions, referrals, coordination, and reform (Gherardi & Whittlesey-Jerome, 2017). This movement will lead to a shift of the school social work role from direct service delivery to more of an expert consultant-based approach to best use knowledge and skillset through overseeing fidelity of interventions, providing support, and increasing multidisciplinary collaboration and communication (Avant & Lindsey, 2016; Gherardi & Whittlesey-Jerome, 2017). All these evolving tasks related to the school social worker role are directly related to the school social worker being placed in a position of leadership within collaborative practices in the school setting (Sullivan, 2016). In turn, these functions may increase recognition of school social worker contributions to leadership in educational-based interdisciplinary collaboration (Sherman, 2016).

Social Work Leadership

Leadership in schools is critical to the success of school social workers, yet leadership research is broad, with the primary focus on traditional and business-based models of leadership. There is little attention paid to the unique contextualization of social work, specifically in the school setting (Elswick, Cuellar, Williams, et al., 2018; Peters, 2018; Teasley, 2018). As the needs and challenges faced by students and their families change, the role of the school social worker expands and evolves providing increased opportunities and responsibilities for leadership at the individual, relational, and organizational levels (Peters, 2018). Because of these changes, school social work practice models can help school social workers identify critical functions related to

leadership. Defining school social work leadership is complicated by a lack of contextually specific research and no distinct leadership model (Elswick, Cuellar, Williams, et al., 2018; Elswick, Cuellar & Mason, 2018; Peters, 2018; Stanley & Kelly, 2019).

Educators naturally lead school districts, but increased social work leadership in school systems can assist with social work role articulation, knowledge, and collaboration (Gherardi & Whittlesey-Jerome, 2017). School social workers are uniquely positioned to contribute to school district leadership, formally and informally, because of their person-in-environment approach and their understanding of the relationship between academics, behavioral, and mental health (Avant & Lindsey, 2016). Through a literature review related to school social work leadership, common themes emerge. These themes include the domains of school social work leadership practice and the need for increased leadership education and training for school social workers.

Leadership defined. Social work leadership impacts organizational culture and staff behavior, enlightened by concepts such as social justice, integrity, respect, values, and ethical behaviors (NASW, 2012; Webster, 2016). Leadership within social work practice is not well defined, and there is a lack of research specific to school social work leadership (Bliss, Pecukonis, & Snyder-Vogel, 2015; Elswick, Cuellar, Williams, et al., 2018; Peters, 2018; Vito, 2019). Complicating this, leadership can be direct, indirect, managerial, and non-managerial with shared characteristics, roles, and functions that are complementary to one another (Tropman, 2018). A review of literature related to school social work leadership helps researchers identify formal and informal school social work

leadership capacities at varying levels of practice, or domains, including individual, relational, and organizational (Ayasse & Stone, 2015; Elswick, Cuellar, Williams, et al., 2018; NASW, 2012; Peters, 2018; Sherman, 2016).

Leadership is often associated with a position or role; however, social work leadership expands from the context of a position and manifests through the social influence of beliefs, values, and behaviors in an organization (King Keenan, Sandoval, & Limone, 2018). There is a difference between a manager and a leader since many social work leadership functions are relational and non-hierarchical based (King Keenan et al., 2018; Tropman, 2018). A manager oversees task completion, whereas a leader encompasses unique qualities that are inspiring, motivating, and innovative (Sullivan, 2016; Tropman, 2018). There are shared qualities between managing and leading; leadership is multifaceted and requires specific skillsets (Tropman, 2018). Defining social work leadership is complicated due to the interchangeable use of the terms managing and leading, particularly because of the significant differences between the terms.

Scholars argue that social work leadership is an abstract practice involving shared values, beliefs, and activities, including reflexivity and engagement (Kelly, 2018; McDermott & Bawden, 2017). Therefore, social work leadership can be difficult to define; however, interpretation of the literature suggests that social work leadership incorporates social work values and ethics to lead others directly or indirectly in a shared vision that empowers individuals, families, and communities (Elswick, Cuellar, Williams, et al., 2018; Hurst & Hurst, 2017; NASW, 2012, 2017; Peters, 2018). Perhaps most significant, social work leadership involves behaviors that promote social change in

multiple domains to address individual, community, and societal challenges (NASW, 2012, 2017; Peters, 2018).

Social work leadership characteristics. Often compartmentalized to crisis intervention, case management, and counseling, school social workers are often not seen for the skills and qualities they can bring to administration and leadership (Sherman, 2016; Webber, 2018). These leadership skills include, but are not limited to, team building, conflict mitigation, coaching, public relations, promoting positive school climate, and providing effective communication (Adams, 2019; Elswick, Cuellar, Williams, et al., 2018). Elswick, Cuellar, and Mason (2018) conducted a qualitative study and found that school social workers reported engaging in leadership activities related to advocacy, school/community partnerships, and increased professional learning.

Scholars agree there are core social work leadership attributes, including vision, modeling/influencing others, teamwork, collaboration, inspiring others to action, promoting change, and complex problem-solving skills that lend to interdisciplinary collaboration and transformational leadership (McDermott & Bawden, 2017; Vito, 2019). Holosko (2009) conducted a thorough literature review of nearly 70 social work leadership articles finding similar core social work leadership attributes that align with transformational leadership. Interestingly, these qualities require a mastery of core self-efficacy skills, including self-awareness, critical reflection, and effective communication (Tompsett et al., 2017).

All these attributes contribute to working with others to ensure individual, group, and organizational success. Enabling the success of other social workers is a priority

leadership opportunity accomplished through adequate ongoing supervision that models behaviors, values, ethics, and integrity (Vito, 2015). Supervision is essential in professional development, and must adapt to multiple contexts, including individual, group, and interdisciplinary supervision (NASW, 2013). According to the NASW (2012, 2013, 2017), supervision is a unique relational leadership opportunity to collaborate, provide professional direction, and model ethical behaviors.

Social workers function as a part of a multidisciplinary team often engaging in reflective practices that encourage emotional processing, open dialogue, and regular feedback (Peters, 2018). These practices indirectly lead other disciplines in ethical practice and behaviors through modeling and example (Cano, 2019; Elswick, Cuellar, Williams, et al., 2018; Jones & Phillips, 2016; Peters, 2018; Zahra et al., 2017). Therefore, it is significant for a social work leader to practice critical self-reflection, remain open minded, fully accept others, and commit to regular self-care (Peters, 2018).

Kelly et al. (2015) found that school social workers struggled with finding their place in school-wide interventions which often require increased leadership capabilities. Luckily, social work leadership can be built into existing structures, specifically structures of support, and through advocacy for educational policy and resources (Ayasse & Stone, 2015). MTSS lends to leadership opportunities for school social workers to assist in developing, incorporating, and overseeing these practices (Avant & Lindsey, 2016; Avant & Swerdlik, 2016; Brake & Kelly, 2019; Ciffone, 2017). Furthermore, school social workers can guide policy development and social change efforts (Sherman, 2016). But a social worker can only be an effective leader if they are accepted in the

organization and identified as a contributor to the success of the organization (Peters, 2018; Stanley & Kelly, 2019).

School social workers with characteristics of leadership are skilled at developing relationships with school administrators to provide a voice in advocacy for the needs of students, families, staff, and the school social work role (Richard et al., 2019). Through relationships with administration and increased leadership capacities, the school social worker can engage in conversations related to policies that impact students, rather than merely task-driven functions (Brake & Kelly, 2019; Gherardi & Whittlesey-Jerome, 2018). The capacity to engage in these conversations indicates the need for a school social worker to advocate for their legitimacy as a leader through innovative collaboration and educating others on the complex and invaluable social work role and function in the school (Sherman, 2016).

There is a relationship between these leadership skills and interdisciplinary collaboration, which is often identified as a primary characteristic of social work leadership (Beddoe, 2019; Elswick, Cuellar, Williams, et al., 2018; Gherardi & Whittlesey-Jerome, 2018; NASW, 2012; Miller et al., 2018; Sherman, 2016). The relational quality of social work leadership allows for the collective group to process emotions and develop an understanding of diversity that will enable the team to focus on a shared goal and common vision (Peters, 2018; Vito, 2019). This provides a social worker with the ability to offer authentic transformational leadership that models social work values and promotes social change (Guerrero, Fenwick, & Kong, 2017; Stanley & Kelly, 2019).

School social work leadership framework. As business leadership models were refined by their creators, these models began to incorporate a more relational focus that aligned with social work values, yet social work leadership theory remained poorly conceptualized and lacking research (Sullivan, 2016). Social work leadership research is more prominent in the fields of medical social work, palliative/hospice care social work, and social work leadership ethics (Cullen, 2013; Elswick, Cuellar, Williams, et al., 2018; Gellis, 2001; Gordan et al., 2018; Kranke, Gin, Der-Martirosi, Weiss, & Dobalian, 2020). However, this is not the case with school social work leadership representing a gap in practice related research (Elswick, Cuellar, Williams, et al., 2018).

Due to the limited contextual school social work leadership research, many of the findings are theoretically and conceptually based. Elswick, Cuellar, Williams, et al. (2018), Holosko (2009), and Peters (2018) conducted literature reviews that contribute to the conceptualization of school social work leadership. Scholars contributed to this literature, suggesting the importance of future school social work leadership and the need for continued attention and research (Teasley, 2018). Various studies related to school social work recommend increasing leadership capacities for school social workers, yet these studies did not explicitly research school social work leadership itself (Elswick, Cuellar, & Mason, 2018; Elswick, Cuellar, Williams, et al., 2018; Gherardi & Whittlesey-Jerome, 2019; Peters, 2018).

Scholars agree that the field of social work practice continues to evolve and they suggest the significance of social work leadership, however, there is lack of clarity in defining core leadership concepts (Rank & Hutchinson, 2000; Sullivan, 2016). The core

leadership practices for social workers are identified at a conceptual level, a stark contrast to the wealth of knowledge related to business management models (Vito, 2019). Rank and Hutchison (2000) surveyed social workers and identified common elements of social work leadership, including proaction, values and ethics, empowerment, vision, and communication. These elements align with transformational leadership and lend to promoting transformational practices (Middletown, Harvey, & Esaki, 2015).

It is challenging to develop a social work leadership model that is context-relevant, inclusive of core leadership principles, and demonstrates the necessity of knowledge and skill mastery specific to the practice setting (Bliss et al., 2014). The School Social Work Association of America (SSWAA) collectively worked with researchers to develop a national school social work model (Kelly et al., 2015). Elswick, Cuellar, Williams, et al. (2018) found that there is not a framework for school social work leadership; however, this leadership falls into multiple domains, representative of the complex nature of school social work practice:

- Promoting student academic and emotional development;
- Fostering a culture of continuous professional development;
- Utilizing evidenced-based interventions and research to drive programs;
- Utilizing assessment tools to determine and monitor interventions;
- Social justice advocacy;
- Interdisciplinary collaboration;
- Policy evaluation and development;
- Supporting and linking to services;

- Family and parent engagement;
- Crisis prevention/intervention.

Each of these domains encompasses several leadership practice behaviors, demonstrating the leadership activities of the school social worker at micro, mezzo, and macro practice (Elswick, Cuellar, Williams, et al., 2018). There is an overlap between the SSWAA domains of school social work practice and the presented framework for school social work leadership, including the use of evidenced-based methods, family and school staff engagement, and resource allocation (Elswick, Cuellar, Williams, et al., 2018; Kelly et al., 2015). These practice principles, attributes, and behaviors are consistent with the recommendations for social work practice standards set forth by the National Network for Social Work Managers (Bliss et al., 2014).

Peters (2018) suggests a need to view school social work leadership as multi-leveled to better align with the role and function of a school social worker. The need for clarity is exasperated by the complexities of each environment and how this impacts the school social work role, identity, and function (Bent-Goodley, 2018; Gherardi & Whittlesey-Jerome, 2017; Lyon et al., 2016; Phillippo et al., 2017; Teasley, 2018). Self-efficacy dramatically impacts the ability of a school social worker to transcend obstacles related to these complexities. Yet, there is no research pertaining to the relationship between leadership self-efficacy and school social work practice.

Education and training. Brillant (1986) initially questioned the lack of leadership education in schools of social work, citing concerns that social work leadership skills are underdeveloped and undertrained. Many argue that it is the

responsibility of social work educational programs to prepare social workers for ethical leadership whether it be a position or through example (Cano, 2019; Elswick, Cuellar, Williams, et al., 2018; Jones & Phillips, 2016; Peters, 2018; Zahra et al., 2017). Leadership knowledge and skills are implied for effective social work practice; however, leadership training is not mandated in social work education programs, and many social workers are ill-prepared for leadership (Elswick, Cuellar, Williams, et al., 2018; NASW, 2012; Peters, 2018).

There is a lack of training, education, and support for social work leadership practices considering the relevance of leadership in effective social work practice (Bliss et al., 2014; McDermott & Bawden, 2017). This may be partially influenced by an increased focus on clinical skills and a lack of social work interest in macro-level practice (Gilliam et al., 2016). Rank & Hutchinson (2000) found that nearly all the social workers who participated in their study indicated a need for leadership education in professional social work learning. This is consistent with the findings of other scholars who indicate the need for formalized education and ongoing leadership training (Brake & Kelly, 2019; Cano, 2020; Gordon et al., 2018; Vito, 2015).

Social work leadership opportunities present as formal or informal capacities found within varying levels of practice (Cano, 2020; Peters, 2018). Kelly et al. (2015) found that there is a need for increased school social work training to provide interventions and support to the whole school environment, not just an individual or group level. This highlights the need for leadership education and training that is

inclusive of all social work leadership practices at all levels of social work practice, including micro, mezzo, and macro (Gilliam et al., 2016).

These found deficits in training impact the success of social workers when they lack the skills and training to participate in leadership activities effectively (Vito, 2015). School social workers are placed in unfamiliar environments with poorly guided positions of leadership that require bridging academic, physical, social, emotional, and mental health (Brake & Kelly, 2019). Therefore, the blending of varying levels of leadership training is relevant to school social workers who regularly advocate for policies that impact students, families, and systematic school social work practice (Gherardi & Whittlesey-Jerome, 2017; Peters, 2018). Gilliam et al. (2016) found that there is a lack of evidence-based social work leadership practices. They noted deficits in education, training, and mentoring focused on developing interdisciplinary and administrative leadership, skills that are consistent with transformational leadership (Gilliam et al., 2016).

Peters (2018) urges for continued social work-specific leadership research and highlights the need for social workers to be skilled and knowledgeable in cultural, systematic, and organizational change rather than merely leadership characteristics, behaviors, and skills. Scholars can interpret from recent literature that schools of social work are expanding through initiating interprofessional leadership courses to promote skills and knowledge related to complex problem-solving (Miller et al., 2018; Sherman, 2016). Similarly, The University of Chicago offers a graduate-level social work program, Leadership in Community Schools, to teach skills and practice in urban school settings

(Gherardi & Whittlesey-Jerome, 2017). Programs like these provide additional leadership specific coursework and training to better prepare social workers for leadership opportunities.

Interdisciplinary Collaboration

Those involved in interdisciplinary collaboration can identify common goals that blend the skills and knowledge of multiple professions to problem-solve, enhance service delivery, and improve outcomes in the complex nature of academic, physical, and mental health (Stone & Charles, 2018). It is a process with shared leadership, problem-solving, and decision making across multiple disciplines that is cognizant of barriers to effective collaboration (Bronstein, 2003; Stone & Charles, 2018). Furthermore, this process engages members across disciplines toward a common goal, recognizing that this goal could not have been accomplished alone (Bronstein, 2002). Transformational social work leaders promote a culture of inclusivity to bring together all disciplines in collaborative processes (Middleton et al., 2015).

Highly accepted and used in the medical and primary care centers, interdisciplinary collaboration demonstrates the effectiveness and increased outcomes through increased access, coordination, and quality of care (Asarnow et al., 2015; Blacker et al., 2016; Lyon et al., 2016; Miller et al., 2018; O'Neil & Black, 2017; Yu et al., 2017). Medical and primary care settings have limited access to children, whereas public schools have access to nearly all children and are often first to identify behavioral and mental health needs (Frauenholtz, Mendenhall, & Moon, 2017; Lyon et al., 2016; Maras et al., 2015). This places schools in a compelling position to provide collaborative care

practices to meet a wide range of student and family needs (Lyon et al., 2016). These collaborative practices are essential partnerships that draw from the varying knowledge, skillset, experience, and expertise of multiple professions to identify and reduce barriers to educational attainment (Avant & Swerdlik, 2016).

Components of interdisciplinary collaboration. Models for interdisciplinary collaboration require professional interdependence on other disciplines, collaborative practices, collective ownership, flexibility, and group process reflection (Bronstein, 2002). The most effective collaboration strategies include relationship building, role clarity, communication, and trust that is established through collaborative norms and structured dialogue (Brake & Kelly, 2019; Bronstein, 2002). Many factors contribute to the quality and quantity of effective multidisciplinary collaboration, including beliefs, views, communication, power differentials, time management, and broader organizational concerns (Stone & Charles, 2018).

Successful collaboration encourages leaders to develop relationships that foster open communication and facilitate quality of care (O'Neill & Ratliff-Black, 2017; Rearick, 2007). Rumping, Boendermaker, and Ruyter (2019) found that collaborative relationships are stimulated by role understanding, communication, shared responsibility, and trust. Reiss, Green, and Ford (2016) report that prior professional relationships built upon trust and mutual understanding promote effective communication. This communication allows for increased role understanding and collaborative leadership (Museux, Dumont, Careau, & Milot, 2015). Communication can be an asset to relationship building and collaboration, or conversely, poor communication generates

conflicts and becomes a source of increased stress (Museux et al., 2015). Differing communication styles, terminology, and professional boundaries contribute to these potential conflicts (Blacker et al., 2016).

Structured dialogue is a crucial factor to the success of interdisciplinary collaboration, reducing many barriers including role confusion, lack of motivation, and professional differences (Blacker et al., 2016; Brake & Kelly, 2019; Reiss et al., 2016; Tompsett et al., 2017). Previous studies indicate that a lack of motivation can determine the effectiveness of collaboration stemming from misunderstood values, role confusion, and misalignment of goals (Blacker et al., 2016; Reiss et al., 2016). Reiss et al. (2016) found that motivation and engagement were highly influential in the reported quality of collaboration. Trust, communication, increased understanding, and tolerance can assist with overcoming these barriers and promote a culture that allows for complex problem-solving (Rearick, 2007).

Collaboration in schools. Scholars cite that providing wrap-around services through interdisciplinary collaboration, consultation, and coordination of systems enhance innovative social work leadership in the school setting (Kelly et al., 2015; Sabatino & BrintzenhofeSzoc, 2018; Teasley, 2018). Student mental health becomes an educational concern because the symptoms of mental health significantly impact the educational functioning and outcomes for students (Frauenholtz et al., 2017; Maras et al., 2015). Researchers have found that schools are in the best position to support social-emotional health of children, yet educators are not prepared to meet the increased

behavioral, emotional, and mental health needs that impact educational attainment (Borg & Drange, 2019; Frauenholtz et al., 2017; Maras et al., 2015; Miller et al., 2018).

Frauenholtz et al. (2017) reported that teachers struggle with identifying and intervening student mental health distress. The limited experience and knowledge of educators in connecting home, school, and community partnerships, necessitates collaborative efforts for problem-solving, goal setting, and interventions related to behavioral, social, and academic success (Miller et al., 2018). But, no single group of professionals is equipped to handle the emotional, behavioral, educational, and mental health needs of the student population (Maras et al., 2015). It then becomes the responsibility of the school-based interdisciplinary team to integrate all of their professional knowledge and skills to develop the best interventions and supports (Maras et al., 2015).

Systematic changes, including MTSS, allow for increased interdisciplinary opportunities demonstrating commonalities with collaborative care-based models. Interdisciplinary teams are essential to implementing interventions aligned with educational policy changes, such as MTSS and RTI (Avant & Lindsey, 2016; Maras et al., 2015). Avant and Swerdlik (2016) reported that social workers found increased collaboration within the MTSS framework, and Mara et al. (2015) found that the success of tiered levels of support, such as MTTS, is contingent upon effective interdisciplinary collaboration. This collaboration is necessary to identify needs, matching levels of support (tiers), and develop interventions (Lyon et al., 2016).

Use of these practices assist members of the interdisciplinary team in avoiding siloed responses to the needs of students in favor of a more collaborative, holistic approach to complex problems that require transdisciplinary interventions (Avant & Swerdilk, 2016; Cederbaum, Ross, Ruth, & Keefe, 2018; Teasley, 2018). However, with this collaboration, there is a need for professional boundaries and role clarity between school social workers and other school-based mental health professionals, such as school psychologists and school counselors, due to the overlapping nature of these professionals (Lyon et al., 2016; Sugrue, 2017). This creates the potential for professionals to feel threatened and unsure of their role within the team (Avant & Swerdilk, 2016; Brake & Kelly, 2019). But, the practice of multi-disciplinary collaboration can assist in connecting, engaging, and supporting these isolated roles in the school setting (Brake & Kelly, 2019).

Consultation is a crucial multidimensional method of interdisciplinary collaboration that engages a problem-solving relational process to more efficiently and effectively address complex issues (Meyers, Tobin, Huber, Conway, & Shelvin, 2015; Sabatino & BrintzenhofeSzoc, 2018; Yu et al., 2017). It is through this process that multiple professionals unite to benefit not only individual students and families but to influence programs and services for the entire school system as a whole (Meyers et al., 2015). Stetson & Plog (2016) found that collaborative problem-solving and intensive consultation increased the ability of educators to meet the needs of their students and effectively reduce their stress.

Social work role in collaboration. Interdisciplinary collaboration is central to school social work practice, drawing from core values, skills, and principles of social work practice (Jones & Phillips, 2016; NASW, 2012; Stone & Charles, 2015). Adhering to the social work code of ethics, social workers in the school setting contribute to reciprocal collaborative relationships that influence behaviors in the organizational context and encourage innovative work behavior (Elswick, Cuellar, Williams, et al., 2018; Guerrero et al., 2017; Jones & Phillips, 2016; Peters, 2018; Zahra et al., 2017). Core competencies of interdisciplinary collaborative practice align with the social work code of ethics to include values and ethics, communication, understanding of roles and responsibilities, and teamwork (Ambrose-Miller & Ashcroft, 2016; Blacker et al., 2016; Jones & Phillips, 2016; Lyon et al., 2016).

School social workers are well-equipped to be responsive to the complexities, barriers, and interventions that impact student success through connecting and mediating multiple professions (Adams, 2019; Webber, 2018). Specific school social work activities contribute to collaboration, including participation in problem-solving teams, planning and developing interventions, and conflict resolution (Avant & Swerdlik, 2016; Guerrero et al., 2017). These activities require the school social worker to demonstrate fluency in the core competencies of interdisciplinary practice, specifically related to cooperation, collaboration, communication, and integration (Ambrose-Miller & Ashcroft, 2016; Blacker et al., 2016; Jones & Phillips, 2016; Lyon et al., 2016).

Brake and Kelly (2019) found that structured collaboration in a professional learning community between teachers and school social workers increased perceived

professional self-efficacy, resiliency, and leadership capabilities. Diaz (2015) discovered that there is a need for collaboration between educators and social workers that supports shared knowledge and experience in developing interventions. Frauenholtz et al. (2017) stress the importance of knowledge sharing, where school social workers serve as an advocate for mental health. Studies indicate the increased communication and structured dialogue between social workers and educators are not only significant to collaboration but also characteristic of social work leadership (Cano, 2020).

Avant and Swerdlik (2016) learned that interdisciplinary collaboration provides leadership opportunities within existing educational support frameworks. This increased scope of practice aligns well with school social work leadership practices, yet many social workers experience the challenges related to interdisciplinary collaboration including role conflict, frustration, power imbalances, and feelings of ineffectiveness (Beddoe, 2019; Elswick, Cuellar, Williams, et al., 2018; Gherardi & Whittlesey-Jerome, 2018). Scope of practice and professional role definition is a commonly cited barrier to effective collaboration, causing trust issues, misunderstandings, and power struggles that distract the team from common goals (Blacker et al., 2016; Bronstein, 2002). This is complicated by the frequently identified feelings of secondary status within the organization as a result of working in a host setting (Peters & Hopkins, 2019). Bolin, Rueda, and Linton (2017) found that school social workers identified challenges stemming from differing goals and value systems, exacerbated by district policy and role ambiguity.

Interestingly, school social workers identify multiple stakeholders in the collaborative process, yet they are infrequently recognized by peers as a contributor to interdisciplinary collaboration (Stone & Charles, 2018). Frauenholtz et al. (2017) found that the administration sets the tone and priority for collaborative processes. Stone and Charles (2018) suggest that school administrations contribute significantly to role definition, plausibility, and adoption of collaborative practices. Increased relationships with administrators can assist with legitimatizing the school social worker role and function in multidisciplinary collaboration (Richard et al., 2019) It then becomes the role of the social worker to develop partnerships and serve as the bridge between multiple professionals through relationship building and conflict mitigation (Adams, 2019; Guerrero et al., 2017).

Social work education, training, skills, and values are vital for interdisciplinary collaboration. Bolin et al. (2018), found that school social workers are often challenged in collaboration due to differing values and goals; however, this allows for the social worker to integrate these values into supporting the reactions of others. Social workers are well-positioned for this task with a robust skillset, allowing them to navigate complex relationships and diffuse power differentials while giving a voice to vulnerable populations (Adams, 2018). It is through communication and relationship building that school social workers can serve as a mindset change mechanism (King Keenan et al., 2018). Therefore, collaborative models increase the scope of practice for social workers in the school setting, allowing for the social work voice in the problem-solving process (Diaz, 2015).

Education and training. Multiple scholars agree that social workers are not prepared for cross-discipline collaboration through social work education programs. Phillippo et al. (2017) conducted a qualitative study to explore school social work practice decisions and found that generalist graduate training did not prepare them to adopt school social work models of practice effectively. In fact, studies have found that social workers need more than just a foundational knowledge of collaborative practices, but also need experiences that promote skill engagement and mastery (Cederbaum et al., 2018; Tompsett et al., 2017). Miller et al. (2018) suggest the need for extensive interprofessional education and training to increase and practice skills, knowledge, and attitudes that promote multidisciplinary teamwork.

Blacker et al. (2016) and Lakkala et al. (2017) found that increased interprofessional training promotes professional identity, problem-solving skills, conflict resolution, and improved collaboration. Avant and Swerdlik (2016) suggest multidisciplinary co-taught training programs to provide professional training in collaborative practices and experiences. Some social work programs have developed and studied interprofessional leadership courses. These courses allow for social work students, student-teachers, and school psychologists to develop a deeper understanding of the role, philosophies, and professional competencies of other professions (Miller et al., 2018). Teasley (2018) recommends course objectives to include interdisciplinary skills and issues related to poverty, mental health, abuse, and academic achievement. Increasing these educational and training opportunities in multidisciplinary practices

better prepare social workers for finding their place working with the complexities in the educational system (Blacker et al., 2016; Lakkala et al., 2017).

Self-efficacy Theory

There is a relationship between self-efficacy and transformational leadership, which increases engagement, encourage teamwork, goal attainment, and effective use of interdisciplinary skills (Bandura, 1997; Hannah et al., 2008; Paglis & Green, 2002). A leader with a higher level of self-efficacy is more able to increase group performance and innovation, which contributes to transformational leadership (Hesbol, 2019). Exploration of the connection between self-efficacy and transformational leadership reveals psychological attributes that are indicative of transformational leadership, including self-efficacy, perspective-taking, and positive affect (Mason et al., 2014).

Self-efficacy theory, a product of social cognitive theory, asserts that self-efficacy contributes to behavioral change and increases coping abilities (Bandura, 1977; Bandura & Locke, 2003). Bandura (2007) describes that those with high self-efficacy demonstrate a commitment to lofty attainment goals while maintaining a positive attitude and continual motivation. Expanding on these concepts, Bandura (1982, 1997) asserts that there is a dynamic interplay between personal, behavioral, and environmental influences and that human behavior is a response to this phenomenon. Therefore, it is more likely for one to engage in comfortable activities, that they have confidence in completing and avoid less confident activities or tasks (Bandura, 1986, 1997). Social workers who master core skills related to self-efficacy, including communication, self-awareness, and critical reflection, develop increased confidence in their abilities (Tompsett et al., 2017).

Central to the concept of self-efficacy is the personal belief that one possesses the ability to successfully perform a desired task and address events that impact their lives (Bandura, 1977, 1993; Bandura & Locke, 2003). This involves the perception of the capability to perform behaviors that produce preferred outcomes (Bandura, 1977, 1986; Gist & Mitchell, 1992). Several studies indicate that a confident individual, with increased self-efficacy, demonstrates a higher level of motivation, resiliency, direction, and ability to regulate cognitions, emotions, and motivation (Bandura, 1997; Bandura & Locke, 2003; Hannah, Avolio, Walumbwa, & Chan, 2012). Therefore, an individual with increased self-efficacy perceives that they have the confidence in skills, knowledge, and abilities to reach goals, overcome problems, and be successful (Bandura, 1977, 1993). Possessing this confidence becomes a vital leadership quality (Bandura & Locke, 2003).

On the other hand, negative lf-efficacy encourages self-defeating thought processes, lack of motivation, lower goal standards, and decreased performance (Bandura & Locke, 2003; Hannah, et al., 2008). These individuals are described as giving up easily, having weak goal attainment, and limited motivation (Bandura & Locke, 2003). Brake and Kelly (2019) report that school social workers feel marginalized due to low self-efficacy of their role, function, and practice in school services. This low self-efficacy consequently impacts the ability of a school social worker to have confidence in their role.

Leadership self-efficacy. Self-efficacy is the foundation of leadership, predictive of development and performance, and possession of leadership self-efficacy is vital to the success of a leader (Bandura, 1997; Bandura & Locke, 2003; Hannah et al., 2008).

Leadership self-efficacy, a subcategory of self-efficacy, can be defined as personal beliefs related to knowledge, skills, and abilities associated with the leadership of groups (Bobbio & Manganelli, 2009; Hannah et al., 2008). These beliefs allow leaders to use their skills to provide direction and garner support and commitment from followers (Hannah et al., 2012; Harper, 2016; Paglis & Green, 2002).

Social workers are skilled at complex psychosocial problem-solving and decision making often indicative of leadership. Problem-solving, decision making, and critical analysis are essential cognitive abilities related to self-efficacy and leadership emergence (Hannah et al., 2012; Wood & Bandura, 1989). Self-efficacy is vital to the type of cognitive and thought regulation that allows for effective problem-solving, solutions, and performance (Bandura, 1989; Hannah et al., 2012). These qualities are included in many leadership models, suggesting the significance of cognitive capacity in leadership (Hannah et al. 2008).

Motivation, a form of self-regulation, is also viewed as a defining attribute included in multiple leadership theories, including transformational leadership theory (Bass, 1985). A product of emotional and cognitive regulation, motivation produces results and goal attainment related to leadership (Hannah et al., 2012). Therefore, it is expected that leaders typically possess qualities indicative of increased self-efficacy, such as increased motivation, because these qualities predictively allow them to successfully carry out tasks related to leadership (Bandura, 1997; Bobbio & Manganelli, 2009; Ng & Chan, 2008).

Emotional intelligence is a characteristic of strong leadership and a sense of self, which includes qualities of insight, self-awareness, empathy, self-regulation, and motivation (Badura, 1997; Sebelski, 2017). Consistent with previous studies, Harper (2016) found a positive correlation between self-efficacy and emotional intelligence. Self-regulation proves to be connected to motivation; therefore, increased self-regulation allows for a leader to cope with emotional and cognitive obstacles that create a barrier to motivation (Hannah, Avolio, Walumbwa, & Chan, 2012).

A leader in possession of increased self-efficacy embodies qualities that promote group efficacy and predict positive group performance (Bobbio & Manganelli, 2009; Hannah et al., 2008; Hannah et al., 2012). Past experiences shape perceived efficacy in leadership; therefore, a successful history of past leadership increases confidence and belief in future abilities (Bandura, 1986). Similarly, self-efficacy increases one's willingness to engage in activities that are perceived to be within their range of capabilities (Bandura, 1977). Conversely, when an individual feels ill-prepared for a particular task, they are often faced with additional stress and are reluctant to participate (Bandura, 1986).

Gaining support for change and commitment from followers is indicative of the success of a leader (Hannah et al., 2012; Paglis & Green, 2002). Multiple studies indicate that leadership personality traits associated with effective leadership and heightened self-efficacy positively impact group performance (Bandura, 2004; Ng et al., 2008). Additionally, studies have continuously demonstrated that there is a relationship between

performance and self-efficacy, specifically related to behaviors associated with self-efficacy (Adewale et al., 2019; Hannah et al., 2012).

Paglis and Green (2002) developed a model for leadership self-efficacy identifying the following components: direction-setting, overcoming obstacles, and garnering support from followers. These components align with transformational leadership models. Direction-setting involves organizational understanding, preparation, and problem-solving abilities (Hannah et al., 2012; Paglis & Green, 2002). Overcoming obstacles may include internal barriers such as poor self-esteem and lack of motivation and external leadership obstacles that affect the group as a whole (Paglis & Green, 2002). Essential skills that contribute to these abilities involve flexibility, motivation, and drive for change (Paglis & Green, 2002). Garnering support from others engages followers to commit to the change process, relying greatly upon interpersonal, integrity, and communication skills (Paglis & Green, 2002).

Self-efficacy helps one bridge perceptions, behaviors, and performance, allowing for a social worker to increase their confidence and capacities as a leader (Bandura, 1982, 1997). This confidence in abilities motivates and engages others while improving outcomes (Bobbio & Manganelli, 2009; Hannah et al., 2008; Tompsett et al., 2017). Since self-efficacy is predictive of behaviors, a school social worker with increased self-efficacy is placed in a position to provide transformational leadership in the context of multi-disciplinary collaboration.

Transformational Leadership Theory

The foundation of transformation leadership theory is influenced by James MacGregor Burns (1978), who identified leadership as either transactional or transformational. Transactional leadership focuses on promoting self-interest through incentives for task completion (Burns, 1978). In contrast, transformational leadership focuses on the process of creating relationships that inspire others to act with a higher level of morality and motivation through vision and empowerment (Bass, 1990; Bass & Riggio, 2006; Burns, 1978). It was not until the 1980s that transformational leadership theory was introduced by Bass, setting the stage for one of the most highly researched leadership theories to date, proving to be successful for organizations, job performance, and job satisfaction (Bass, 1999; Bass & Riggio, 2006).

Bass (1997) indicated that transformational leaders motivate others to achieve by transcending their self-interests. This is accomplished through leaders empowering their followers to create alignment in their work through goal clarity, innovative practices, and individualized support (Bass & Riggio, 2006; Hughes, Avery, & Nixon, 2010). This is a process that motivates followers to higher ideals and values that stimulate followers to put aside self-interest for the collective purpose of the group (Bass, 1985; Burns, 1978). It is though these qualities that a transformational leader can inspire and guide groups in a common direction through established shared goals and mutual purpose that elicit enhanced performance (Bass, 1985; Bass & Avolio, 1994; McDermott & Bawden, 2017).

Core components. There are specific characteristics of transformational leadership, including idealized influence, inspirational motivation, intellectual

stimulation, and individualized consideration (Bass, 1985, 1990; Bass & Avolio, 1994). Studies demonstrate that these components increase performance and promote individual and organizational success (Howell & Avolio, 1993; Jung & Avolio, 1999). Tafvelin, Isaksson, and Westerberg (2018) conducted a literature review related to factors that contribute to transformational leadership, finding that personality, intelligence, and mood contribute to transformational leadership.

Idealized influence creates trust and respect that fosters collaboration (Rearick, 2007). Trust is an essential relational quality required between transformational leaders and followers to obtain a commitment to a shared vision (Bass & Avolio, 1994). Engelbrecht and Samuel (2019) found that there is a positive relationship between transformational leadership and trust at the individual and organizational levels. Often used interchangeably with charismatic influence, idealized influence attracts others and promotes respect and admiration of the leader (Bass, 1985; Bass & Riggio, 2006). Arguably, idealized influence is the foundational and defining quality of transformational leadership, highly connected and influential to the other core components of transformational leadership (Jung & Sosik, 2002). This effectively sets the stage for increased group motivation.

A transformational leader embodies a high level of self-efficacy that translates into the ability to model particular behaviors that motivate others and lend to effective collaboration (Bandura & Wessels, 1997). Inspirational motivation allows for the transformational leader to attract others with their personality to realign personal values towards common goals and shared vision (Bass & Avolio, 1994; Bass & Riggio, 2006).

This is accomplished through modeling behaviors of interdependence and enthusiasm (Rearick, 2007). The shared vision translates to strong group cohesion and collective identity that creates further empowerment (Jung & Sosik, 2002; Rearick, 2007). Motivation is then increased by the ability of the leader to encourage increased self-efficacy of the group or collective efficacy, which improves performance (Bandura, 1986, 1997; Bass, 1990).

Intellectual stimulation allows for creative, flexible solutions to complex problem-solving, drawing from the unique contributions of each group member (Bass, 1985). This suggests that a transformational leader understands the relationship between intellectual stimulation and behavioral change, specifically motivation to goal attainment (Sullivan, 2016). Khan and Khan (2019) found that transformational leadership fosters knowledge sharing, learning, and encourages innovation. Furthermore, studies demonstrate the link between increased group creativity and innovation through transformational leadership (Jung, 2001).

Lastly, a leader's individualized consideration promotes individual success through developing followers through support, coaching, and mentorship (Bass & Riggio, 2006; Jung & Sosik, 2002). This activity fosters healthy communication through active listening and close attention to the needs of the individual (Rearick, 2007). These actions increase individual self-confidence and develop relationships with workers that lend to increased satisfaction, proving to contribute to the effectiveness of an organization (Bass & Avolio, 2006; Sullivan, 2016; Tafvelin et al., 2018). Mason et al. (2014) found that multiple studies indicate that there is a positive relationship between transformational

leadership and other variables, including the well-being of followers, behaviors, and overall performance.

Transformational leadership theory aligns with self-efficacy and multidisciplinary collaboration through promoting a culture that engages and motivates followers to goal attainment and increased productivity (Adewale et al., 2019). The ideology of collective, shared power is a common theme between transformational leadership and models of effective multidisciplinary collaboration (Rearick, 2007). This ideology suggests that organizational success is contingent on a relationship between the leader and the followers that encourages maximum potential (Bass, 1985; Burns, 1978).

Social work and transformational leadership. Aligning closely with social work values, transformational leadership tends to be the most compatible with social work practice in comparison to other leadership theories (McDermott & Bawden, 2017; Peters, 2018). Transformational leadership empowers social workers to become active change agents in multidisciplinary collaboration through shared leadership through processes that align with social work values (Harris & Mayo, 2018; NASW, 2012; Rearick, 2007). The transformational social work leader models behaviors and ethical practice to develop relationships that motivate social change (Harris & Mayo, 2018; Jung & Sosik, 2002; Rearick, 2007).

Park and Pierce (2020) found that transformational leadership in social work management of child welfare decreased worker turnover rates. Similarly, Bodla and Nawaz (2010) found that transformational leadership positively impacts employee satisfaction. These studies and others indicate the impact of transformational leadership

in the social services field, affecting not only employee satisfaction, but also retention (Engelbrecht & Samuel, 2019; Tafvelin et al., 2018).

Although transformational leadership aligns with social work principles, some scholars believe that transformational leadership is not entirely compatible with the complexities of social work leadership (Peters & Hopkins, 2019; Sullivan, 2016; Tafvelin et al., 2018). McDermott and Bawden (2017) identify the core attributes of social work leadership, including vision, modeling behavior change in others, teamwork, collaboration, problem-solving, and promoting social change. These attributes align very closely with the core components of transformational leadership. However, it is theorized that business models, such as transformational leadership theory, do not take into consideration the unique contextual factors associated with social work leadership (Peters, 2018).

Organizational climate is vital not only in supporting social work leadership but also in creating a culture conducive to transformational leadership (Guerrero et al., 2017). Tafvelin et al. (2018) found that working conditions and hierarchical leadership contribute to the ability of supervisors to enact transformational leadership practices. A school social worker who demonstrates transformational leadership models behaviors, notably ethical behaviors, that influence others to change organizational climate (Guerrero et al., 2017).

Summary

History indicates that leadership is a discrete function of social work practice, but social workers struggle with navigating and receiving recognition of their roles in host

settings (Beddoe, 2017; NASW, 2012; Sugrue, 2017; Sullivan, 2016). Current changes in educational policy expand leadership activities within the school social worker role, most notably in the context of interdisciplinary collaboration (Avant & Lindsey, 2016; Gherardi & Whittlesey-Jerome, 2017; Sherman, 2016). The literature demonstrates that these leadership roles are abstract and contextual, inclusive of varying levels of practice, or domains, including individual, relational, and organizational (Ayasse & Stone, 2015; Sherman, 2016; Elswick, Cuellar, Williams, et al., 2018; NASW, 2012; Kelly, 2018; Peters, 2018).

Scholars agree that school social work leadership functions are aligned with and lend to effective interdisciplinary collaboration and transformational leadership (Holosko, 2009; McDermott & Bawden, 2017; Vito, 2019). Yet, research indicates that there are barriers to school social workers reaching this potential (Kelly et al., 2015). These barriers include personal, interpersonal, and organizational obstacles to leadership and effective interdisciplinary collaboration (Kelly et al., 2015; Sherman, 2016). School social workers are faced with unique challenges related to leadership that require an increased level of confidence or self-efficacy to overcome barriers to success (Paglis & Green, 2002; Tompsett et al., 2017). Many studies indicate the need for increased education and training related to leadership and interdisciplinary practices (Bliss et al., 2014; Cederbaum et al., 2018; McDermott & Bawden, 2017; Tompsett et al., 2017).

Unfortunately, there is a lack of research related to school social work leadership. Luckily, there are developments in a social work leadership model that is inclusive of interdisciplinary practices (Elswick, Cuellar, Williams, et al., 2018; Kelly et al., 2015;

Peters, 2018). This literature review demonstrates that a transformational social work leader promotes a culture of inclusivity conducive to collaborative processes (Middleton et al., 2015). Yet again, there are barriers to effective collaboration that are similar to the obstacles faced by school social workers in leadership capacities (Beddoe, 2019; Elswick, Cuellar, Williams, et al., 2018; Gherardi & Whittlesey-Jerome, 2018).

The purpose of this study was to explore a gap of knowledge in school social work practice related to school social work leadership. There is evidence of the relationship between self-efficacy and leadership (Bandura, 1997; Hannah et al., 2008; Paglis & Green, 2002) and the relationship between leadership and interdisciplinary collaboration (Avant & Swerdlik, 2016; Beddoe, 2019; Elswick, Cuellar, Williams, et al., 2018; Gherardi & Whittlesey-Jerome, 2018). However, there is not research related to the relationship between self-efficacy and school social work leadership in the context of interdisciplinary collaboration. This research builds on previous research with the potential to develop school-based collaborative care policies, systems, data-based decision-making protocols, and best practices (Lyon et al., 2016). Additionally, I hope that this research will contribute to social work education programs, particularly since research indicates deficits in social work education and training for interdisciplinary collaboration and leadership.

Section 2: Research Design and Data Collection

School social workers are often ill-prepared and not recognized for their leadership qualities and contributions to interdisciplinary work. The purpose of this quantitative study was to examine the relationship between school social worker leadership qualities and their perceptions of interdisciplinary collaboration. This research contributes to social work practice by developing an understanding of the factors that contribute to effective school social work leadership in the context of interdisciplinary collaboration. Building on previous research identifying insufficiencies of leadership and interdisciplinary education and training, this knowledge contributes to previous studies (Beddoe, 2019; Elswick, Cuellar, Williams, et al., 2018; Peters, 2018). Moreover, in this study, I explored the relationship between school social worker leadership self-efficacy and perceptions of collaboration.

This chapter provides details of the quantitative study design. A review of the study design details the methodology, including participant selection, data collection, and specific instrumentation. Limitations and ethical considerations specific to this study are identified and addressed. The last section of this chapter will include data analysis methods.

Research Design

School social workers provide services in the educational setting that lend to leadership opportunities, yet there are often barriers to successful leadership with interdisciplinary school-based teams. There is a need for research exploring how leadership self-efficacy impacts the perceptions of interdisciplinary collaboration. In this

quantitative study, I examined the independent variables that contribute to leadership self-efficacy, the covariate variable of experience level, and their relationship to the dependent variable of perceptions of interdisciplinary collaboration to answer the following questions:

RQ1: What is the relationship between the school social worker leadership self-efficacy as measured by the LEQ and perceptions of interdisciplinary collaboration as measured by the IIC?

RQ2: What is the relationship between school social worker level of experience, measured in years, and perceptions of interdisciplinary collaboration as measured by the IIC?

RQ3: What is the extent to which school social worker level of experience, measured in years, and school social worker leader self-efficacy, as measured by the LEQ, predict perception of interdisciplinary collaboration as measured by the IIC?

Answering these research questions was accomplished through a cross-sectional, email-based survey with a correlational, quantitative, nonexperimental design. The research design can be considered the blueprint of the study, consisting of a plan, a structure, and a strategy (Martin & Bridgmon, 2012). In this study, I used a correlational design, which is frequently used in quantitative survey research to demonstrate, explain, and predict the relationship between variables (Bloomfield & Fisher, 2019). Furthermore, this design is consistent with the purpose of this study to examine the relationship between the independent variables that contribute to leader self-efficacy and the dependent variable of perceptions of interdisciplinary collaboration.

In this study, I investigated the relationship between school social work leadership self-efficacy and perceptions of interdisciplinary collaboration. The LEQ was used to measure leadership self-efficacy and the IIC was used to measure perceptions of interdisciplinary collaboration. The covariate variable in this study was the social workers' years of experience. Numerical data were used to assess the relationship between the variables in this study. I hypothesized that there is a positive relationship between leadership self-efficacy and perceptions of interdisciplinary collaboration.

Methodology

School social workers in Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin were invited to participate through email administered by MSSC. Each participant was emailed two validated questioner-based assessment tools to measure leadership self-efficacy and perceptions of interdisciplinary collaboration. To obtain responses representative of school social workers in the Midwestern United States, participants were recruited based on their registration with their respective local state school social work associations. This was accomplished through the assistance of the Midwest School Social Work Council, a coalition of 11 Midwestern school social work state associations.

Data Collection and Sampling

Because of the easily accessible population of school social workers through the Midwest School Social Work Council, I used nonexperimental, random sampling in this study. There is significance in obtaining a survey response from an adequate sample size representative of the population to reduce bias; therefore, random sampling was

appropriate and best representative of a population while limiting sampling error (Bruce, Pope, & Stanistreet, 2018; Martin & Bridgmon, 2012). I planned to email all school social workers registered with their local state school social work association chapter. Approximately 500 school social workers were invited to participate with an expected response rate of 30% to obtain at least 150 responses. A reminder email was sent after 2 weeks to encourage a response from as many participants as possible.

Ethics approval and permission from the MSSC was obtained prior to sending invitations. Based on the population size, acceptable significance level, and anticipated response rate, at least 100 usable surveys were needed to adequately represent the total population (Rosenthal, 2012). Participation was voluntary and anonymous because participants were not asked for any identifying personal information. The survey was expected to take 12 minutes to complete, and I hoped the online survey format would encourage participation.

Instrumentation

It is significant to assess self-efficacy to promote leadership development and identify potential leadership barriers (Harper, 2016). Due to the subjective nature of self-efficacy and inferred value, self-reporting is the ideal assessment (Bandura, 1986; Hannah et al., 2008; Hannah et al., 2012; Tompsett et al., 2017). In addition to data collected from the assessment tools, descriptive demographical information related to age, education, experience, and state of practice were collected in this study.

Leader efficacy questionnaire. The LEQ is a 22-item self-report instrument that measures the self-efficacy of a leader and their beliefs associated with being supported in

leadership (Hannah & Avolio, 2013). Permission was obtained through Mind Garden, Inc., to use this instrument specifically for this research. This approval and sample items from the scale can be found in Appendix A and Appendix B. Due to copyright, only a sample of the questionnaire can be provided in the appendix.

The LEQ explores three components of leader efficacy: (a) leader action self-efficacy, (b) leader self-regulation efficacy, and (c) leader means efficacy (Hannah & Avolio, 2013). Many scholars have widely researched self-efficacy (Holden, 1991; Luthans, 1998) and means efficacy (Prussia & Kinicki, 1996) in the organizational context, linking these concepts to leadership (Hannah et al., 2008). Influenced by leader self and means theory, this questionnaire is validated and has shown to predict qualities of transformational leadership (Hannah et al., 2008, 2012). Hannah et al. (2012) refined and operationalized the conceptual framework of Hannah et al. (2008) for this instrument, validating it across several diverse studies.

These five studies were designed to evaluate construct/content validity and examine the psychometric properties of the LEQ (Hannah et al., 2012). The initial study explored the construct/content validity using leadership expert scholars to change content, reduce redundancy, or omit content. It was determined that a 0-100-point scale was more accurate and psychometrically valid than a scale of 1-10 when measuring efficacy. A score of 100 equates to the highest level of efficacy or confidence. These scores were then later rescaled for ease of data interpretation and to provide consistency with other commonly used assessment tools (Hannah et al., 2012).

The second study in this series tested the LEQ structure and discriminant validity (Hannah et al., 2012). These results showed that all three of the dimensions leader action self-efficacy, leader self-regulation efficacy, and leader means efficacy have unique contributions to the instrument construct. Additionally, this study was conducted to test two separate groups, reporting a .93 and .94 alpha coefficient of internal consistency. Although this study indicated support for convergent and discriminant validation of the LEQ instrument, Hannah et al. (2012) conducted three additional studies to explore the validity of the LEQ further.

These subsequent evaluations explored the relationship between the LEQ and theoretical constructs in additional groups with chi-square difference tests (Hannah et al., 2012). The results from these tests indicated discriminant validity. Internal consistency was reported in these groups with an alpha coefficient of .93 and .94, consistent with previous samples. Researchers compared variance shared by each construct and its measures to further test discriminant validity. These combined reports demonstrated discriminant validity that was generalized across two contextually different samples. Through multiple studies of unique contextual populations, researchers found that the LEQ could garner a greater understanding of the complexities of leader efficacy (Hannah et al., 2012). Furthermore, the LEQ has construct validity and reliability across these studies (Hannah et al., 2012).

Index of interdisciplinary collaboration. The IIC is specifically designed for social workers and can be found in Appendix C with the permission to use in research in Appendix D (Bronstein, 2002). Measuring the perceptions of common indicators of

collaborative care in social workers, the IIC is a 49-item, 5-point Likert-type self-report scale (Bronstein, 2002). Common indicators are based upon the interdisciplinary model, including interdependence, newly created professional activities, group ownership, process reflection, and flexibility. This validated tool is effective in assessing positive interdisciplinary interactions and inspiring reflection on how to improve these practices (Bronstein, 2002).

Literature and theory contributed to the face validity of this instrument; however, Bronstein (2002) conducted a pilot test to further demonstrate this. A convenience sample of MSW students completed the instrument and participated in a focus group to obtain feedback on content, which established the face validity. Bronstein (2002) then administered the instrument to a random sample of 1000 NASW members. Simultaneously, the IIC was administered to two additional MSW classes to provide different population samples. The psychometric properties of the IIC were tested, including test-retest reliability, factor analysis, tests for validity, and internal consistency. Research indicates strong support for this scale as a measure for interdisciplinary collaboration, as indicated through reliability and factor analysis tests (Bronstein, 2002).

Internal consistency was analyzed by use of Cronbach's alpha and found an alpha coefficient of .92 (Bronstein, 2002). It was found that seven of the items on the 49-item scale did not contribute to the internal consistency of the scale, suggesting that these items are optional (Bronstein, 2002; Parker-Oliver, Bronstein, & Kurzejeski, 2005). Because of this, the 42-item scale was used in this study. Further research suggested combining conceptually similar scale items of flexibility and interdependence, which was

also done in this study (Bronstein, 2002; Parker-Oliver et al., 2005). Studies indicate that the IIC has strong validity through testing, literature, and these modifications (Bronstein, 2002; Parker-Oliver et al., 2005).

Data Analysis

After receiving approval from the Walden Institutional Review Board (IRB), local state school social work chapters were asked to email the surveys to all active members in their respective states. School social workers in the states of Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin were invited to participate. The email invitation contained the informed consent allowing for participants to fully understand the study and acknowledge their voluntary participation. At the end of the informed consent an anonymous link was provided to a standardized Qualtrics Survey, which collected the responses. These responses were monitored; however, individual respondents were anonymous and unidentified. The online survey was available for 4 weeks with a reminder email sent out after 2 weeks. After these 4 weeks, the data was transferred to SPSS and analyzed.

Data obtained from the completed email-based surveys were stored and analyzed using SPSS version 27. Each survey was screened and assessed for missing data entry information. I used a simple reliability test to verify the internal consistency of the scales. I then used descriptive statistical analysis to analyze the information obtained from each participant to gain a better understanding of the population sample. This information included gender, age, the highest level of education, years of experience, cultural background, and if the participant has attended a leadership training or course (Hannah &

Avolio, 2013). The descriptive analysis identified the cross-sectional frequencies, percentages, and measures of central tendency in responses based upon the collected demographical information. Demographical information was collected along with survey responses to answer the research questions.

All the research questions sought to find the relationship or the correlation between the variables. Binary correlation analysis measured the strength of the relationship of these variables in each of the research questions. This assisted in answering these research questions and testing the hypotheses to determine the strength, direction, and statistical significance of the variables (Bruce et al., 2018). I conducted a Pearson correlation to answer research questions 1 and 2.

For the final research question, I used linear regression analysis to examine the extent to which years of experience and self-efficacy predict perceptions of interdisciplinary collaboration. Years of experience and self-efficacy, both continuous variables, were included as independent variables in a multiple regression model predicting interdisciplinary collaboration. Multiple regression predicted the relationship between the independent variables and dependent variable (Orme & Combs Orme, 2009). Moreover, I used multiple regression to examine the degree to which these independent variables contribute to the explained variance of interdisciplinary collaboration.

Assumptions and Limitations

There are several assumptions, limitations, and delimitations associated with this study related to data collection, research design, survey design, and statistical analysis. It is essential to acknowledge and discuss all these potential concerns as they relate to the

present study. This is particularly important if these factors may impact the presented results and findings. Quantitative research seeks to provide reliable statistical analysis; therefore, researchers must identify and explore all these barriers and limitations (Queiros, Faria, & Almeida, 2017).

Assumptions

Data collection in this study relied upon online surveys, and that participants had online accessibility. Online surveys present the risk of fraudulent responses or responses by those outside of the intended group (Lefever, Dal, & Matthíasdóttir, 2007). Therefore, it was assumed that participants represented themselves, met the inclusion criteria, and that participants provided truthful responses, with accurate self-representation. Since it is difficult to validate the truthfulness of each participant's responses, it was essential to acknowledge the acceptance of honest survey responses. There was a presumption that participants have interest and are motivated to complete the survey voluntarily without any other motives. Lastly, it was speculated that voluntary participation does not create a bias that could impact the study results and findings.

Limitations

This study sought to determine the relationship between leader self-efficacy and perceptions of interdisciplinary collaboration. The correlational design of this research can effectively be a limitation in this study as correlation establishes the relationship between variables and does not imply causality (Bruce et al., 2018). Therefore, a statistically significant relationship between the variables does not allow conclusions for cause and effect. Interpretation of correlational statistics can be problematic if there is a

linear relationship between independent variables or multicollinearity, particularly since multicollinearity leads to incorrect results of linear regression analysis (Kim, 2019).

The self-report nature of the LEQ and the IIC and limitations related to cross-sectional design are worth noting since the data collection instruments also influence data analysis. A cross-sectional study design collects data from one period. Because the LEQ and IIC are perception-based, self-report instruments, there could be response variance contingent upon the timing of the survey. Longitudinal studies provide information over a period and can demonstrate change, whereas cross-sectional limits data to a particular time. The lack of longitudinal data and lack of comparative data to current research were also limitations.

Although electronic access increases the ease and accessibility of data collection, there are limitations associated with these methods. There are factors related to electronic data collection to consider that may impact the results of the study, including a lack of participation and incomplete responses, which affect data collection and sample size. Time, resources, motivation, and accessibility presented unique limitations to this study.

Researchers have found that online survey response rate is less than other administration methods, and participants may view the email survey as unsolicited junk mail (Lefever et al., 2007; Nayak & Narayan, 2019). The length of the survey measurements may also impact participant recruitment and sample size. Lefever et al. (2007) report that the email survey design must be simple to complete to encourage a higher response rate. Participants may find the survey too time-consuming, and testing fatigue can impact their responses or completion of the survey.

It is also imperative to consider the characteristics of those who responded versus those who have not responded. Each potential participant has important knowledge, and a lack of response leaves information from being uncovered. A desirable sample includes representation from all demographics within the targeted population, yet Lallukka et al. (2020) found that younger people were less likely to respond to survey requests. Age is a factor that impacts the response rate for online surveys as older populations may struggle with issues related to technology. In contrast, younger demographics may be affected by other priorities and time constraints (Lallukka et al., 2020).

Participant diversity is another potential limitation of this study that would influence the generalization of findings. A lack of internet or computer access may impact the information uncovered about the particular population (Nayak & Narayan, 2019). Since the target population is school social workers, the timing of the survey could present another challenge to the response rate. Many school social workers do not work in the summer months and may not check their emails or check their emails infrequently which could further limit response rates.

Ethical Procedures

Before administering the electronic surveys, I received all institutional permissions for this study, including IRB ethics approval. Each participant received full disclosure of the study, including the nature and purpose of the research. The disclosure identified the procedures and voluntary nature of the study. Participants acknowledged voluntary participation, provided implied informed consent, and had the right to decline to answer any question or to withdraw from the study at any time.

Confidentiality and privacy were significant considerations with this study. The anonymity of participants and the confidentiality of their responses were fundamental ethical concerns. This was complicated by the use of electronic data collection, where modern advances in technology can impact the privacy and anonymity of participants (Nayak & Narayan, 2019). Anonymity was ensured by not requesting or linking names to survey data and by proper use of data storage.

Data must be stored in a manner that maintains confidentiality and protects the responses of each participant (Nayak & Narayan, 2019). All data were collected through Qualtrics in a password protected account only accessible to this researcher. The participant data were stored and analyzed in SPSS software, also in a password-protected account only available to this researcher.

Summary

This chapter provided a detailed description of the research design and methodologies of this study. The population was described, along with the sampling methods and instrumentation used to collect data from participants. Included in this chapter were the purpose of the study, research questions, hypotheses, and description of data analysis. In conclusion, this chapter reviewed the assumptions, limitations, and ethical considerations unique to this study.

The purpose of this research was to explore the relationship between leader self-efficacy and perceptions of interdisciplinary collaboration of school social workers in Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin. The LEQ was used to measure leader self-efficacy, and the IIC was

used to measure perceptions of interdisciplinary collaboration. The data collected from the instruments and the analysis are presented in Section 3.

Section 3: Presentation of the Findings

The purpose for this quantitative study was to examine the relationship between school social worker leadership self-efficacy and perceptions of interdisciplinary collaboration. Core social work leadership attributes lend to interdisciplinary collaboration and transformational leadership (McDermott & Bawden, 2017; Vito, 2019). Therefore, I hypothesized that a relationship exists between social work leadership qualities and perceptions of interdisciplinary collaboration. In this quantitative study, I used the LEQ to measure leadership self-efficacy and the IIC to measure perceptions of interdisciplinary collaboration to identify and explore the relationship between the variables that contribute to social work leadership and interdisciplinary collaboration.

In this chapter, I discuss the data collection process and results from the study of 144 survey responses of school social workers in the Midwest United States associated with the MSSC. I describe the data analysis techniques including recruitment, response rate, data analysis procedures, validation, and limitations of the study. Evaluation of the statistical assumptions for analysis methods will be explored and evidenced. Lastly, I report the findings of the study including descriptive and statistical findings as organized and guided by the following research questions:

RQ1: What is the relationship between the school social worker leadership self-efficacy as measured by the LEQ and perceptions of interdisciplinary collaboration as measured by IIC?

RQ2: What is the relationship between school social worker level of experience, measured in years, and perceptions of interdisciplinary collaboration as measured by the IIC?

RQ3: What is the extent to which school social worker level of experience, measured in years, and school social worker leader self-efficacy as measured by the LEQ, predict perceptions of interdisciplinary collaboration as measured by the IIC?

Data Collection

The email invitation contained the informed consent allowing for participants to fully understand the study and acknowledge their voluntary participation. In this informed consent, each participant received full disclosure of the study, including the nature and purpose of the research. The disclosure identified the procedures and voluntary nature of the study. At the end of the informed consent, participants acknowledged voluntary participation and provided implied informed consent through accessing the anonymous Qualtrics survey link.

Included in the survey was a demographic section collecting data on gender, age, highest level of education, years of experience, state of practice, cultural background, experience in leadership, and if the participant had attended leadership training. Also included in the survey were two standardized scales, the LEQ (see Appendix A) and the IIC (see Appendix C). The survey would take approximately 10 minutes to complete. Participants had the right to decline to answer any question and to withdraw from the study at any time.

All qualified participants were self-identified as school social workers in the Midwestern United States. The online survey was available for 4 weeks with a reminder email sent out after 2 weeks. After these 4 weeks, the data obtained from the completed email-based surveys were transferred to SPSS 27 to be analyzed.

Time Frame for Data Collection

I received IRB approval through Walden University, # 08-26-073973, to begin research on August 25, 2020 with an expiration date of August 25, 2021. After receiving IRB approval, I provided the email study invitation to the president of the MSSC, which included the informed consent and anonymous Qualtrics survey link. The president of the MSSC then forwarded this email invitation, consent, and survey link to the local state social work chapters in the states of Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin for distribution to all registered members of their respective state chapter. Data collection began on August 26, 2020 and ended on September 25, 2020, lasting for approximately 4 weeks.

Response Rate

There was a total of 201 school social workers who participated in the study representing nine Midwestern states. These responses were monitored; however, individual respondents were anonymous. Of the 201 surveys, there were 57 incomplete surveys and 144 complete and usable surveys; therefore, 144 participants completed the research study. Of the 57 incomplete surveys, 47 participants completed the demographic section only, eight participants completed the demographic section and the LEQ, and two participants completed both the demographic section and the LEQ and started the IIC but

did not complete the entire IIC scale. This indicated that 71.6% of participants who attempted the survey completed the survey.

Limitations and Problems

There were minor discrepancies that arose through the data collection process presented in Section 2. No responses were collected from the states of Iowa and Ohio, suggesting that surveys were not distributed in those states. Additionally, there were limited responses from the states of Kansas, Indiana, Michigan, and Kentucky, also signifying that surveys were not distributed to all potential participants in those respective states. It is unknown how each state distributed the study invitation and consent form, as I had no control over the distribution after the initial email invitation to the president of the MSSC. There is a possibility that representatives from each state only completed the survey themselves or shared the survey through social media or other methods to their peers. It is important to note this because it is assumed that all responses were truthful and that each participant met inclusion criteria outlined in Section 2.

All data were collected and stored in Qualtrics, the online survey platform. I noticed rather quickly that I had overestimated the response rate in this study. This presented a significant limitation to this study, preventing me from determining if there was an adequate response rate representative of the sample. Furthermore, this limitation impacted the generalizability of this study. It is also unknown if the survey was distributed to all potential participants, making it impossible to determine the number of email survey invitations sent and received for this study.

Data Analysis

After screening and assessing surveys for missing data, I had a total of 144 useable surveys for data analysis. I prepared the data for analysis through recoding variables. String variables were categorized and recoded to numeric codes for ease of data analysis. The IIC consisted of 12 inversely worded statements designed to minimize response sets (Bronstein, 2002). I reverse-coded responses to Statements 4, 5, 7, 11, 12, 17, 21, 23, 26, 32, 36, and 41 prior to data analysis. Finally, I ensured that all variables were labeled the appropriate type, values, and measures in SPSS.

Scale Reliability

Once the scales and subscale questions of the LEQ and IIC were created into new variables and coded, I could test each scale for internal consistency. A reliability analysis was performed to test internal consistency of the LEQ and the IIC. Cronbach's alpha is commonly used to measure the internal consistency and reliability of a scale (DeVellis, 2003). I ran Cronbach's alpha on each scale and subscale of the LEQ and the IIC to test the reliability of each scale. Finally, I compared the results to previous studies and displayed the results in my findings.

Descriptive Statistics

Descriptive statistical analysis was used to analyze participant data and demographical variables, including gender, age, highest level of education, years of experience, cultural background, years of leadership experience, and if the participant attended leadership training or courses. Each of these variables was recoded to numeric values prior to analysis. Years of experience was recoded into a dichotomous variable to

represent high and low levels of experience. Frequencies, means, standard deviations, and ranges of the demographical variables were measured by the descriptive statistics.

Research Question Analysis

RQ1 and RQ2 sought to explore the relationship between variables. The first research question examined the relationship between leadership self-efficacy as measured by the LEQ and perceptions of interdisciplinary collaboration as measured by the IIC. Similarly, the second research question explored the relationship between years of experience, measured in years, and perceptions of interdisciplinary collaboration as measured by the IIC. This was accomplished by running the Pearson correlation to answer RQ1 and RQ2.

Lastly, RQ3 explored the extent the school social worker level of experience measured in years, and school social worker leader self-efficacy as measured through the use of the LEQ predict perceptions of interdisciplinary collaboration as measured by the IIC. To answer this research question, I conducted a multiple linear regression. This was appropriate and aligned with the study design because a multiple linear regression predicts new values for the dependent variable as result of the independent variables and determines how the variance of dependent variable is explained by the independent variables (Laerd Statistics, 2015). For this multiple regression, the perceptions of interdisciplinary collaboration, as measured by the IIC, was the dependent variable or the outcome variable. The independent variables of leader self-efficacy, as measured by the LEQ, and years of experience were considered the predictor variables.

Findings

Descriptive Statistics

Descriptive statistical analysis was used to analyze the information obtained from each participant to gain a better understanding of the population sample. This information included gender, age, the highest level of education, years of experience at current job, cultural background, and the number of leadership training or courses attended. Descriptive statistics were used to analyze the demographic variables that represent the sample.

A total of 201 school social workers participated in the study, representing nine Midwestern states. These responses were monitored; however, individual respondents were anonymous. Of the 201 surveys, there were 57 incomplete surveys and 144 complete and usable surveys. This indicates a 71.6% survey completion rate in this study.

Invitations were extended to school social workers in the states of Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin. Table 1 indicates the frequency of response rate from each state invited to participate in the study. One hundred and forty-four responses were received from nine states, with the highest number of responses from Illinois representing 30.6% (n = 44) of responses. Minnesota followed closely with 29.9% (n = 43). Nebraska accounted for 16.7% (n = 24) and Wisconsin 9.7% (n = 14). Minimal responses were received from Missouri with 6.3% (n = 9), Kentucky with 4.2% (n = 6), Michigan with 1.4% (n = 2), Indiana with 7% (n = 1) and Kansas with 0.7% (n = 1). No responses were received from Iowa or Ohio.

Table 1

Participating States

State	*n*	%
Illinois	44	30.6
Minnesota	43	29.9
Nebraska	24	16.7
Wisconsin	14	9.7
Missouri	9	6.3
Kentucky	6	4.2
Michigan	2	1.4
Indiana	1	.7
Kansas	1	.7
Iowa	0	0
Ohio	0	0

The sample consisted of 144 school social workers ranging in age from 25 to 73 (M = 43.69, SD = .858) with a median age of 44.5 years old. Age distribution, or age composition, of this study was similarly proportionate in each age range with slightly higher frequencies of respondents from ages 42–47 (n = 31) and 48–52 (n = 31), cumulatively representing 43% of total responses (see Table 2). Accounting for 4.2% (n = 6) of responses, the least represented age range was ages 61 and over.

Table 2

Participant Age in Years

Age range	*n*	%
25–30	19	13.2
31–36	19	13.2
37–41	17	11.8
42–47	31	21.5
48–52	31	21.5
53–60	21	14.6
61 +	6	4.2

Of these responses, 93.1% (*n* = 134) were female and 6.9% (*n* = 10) were male (see Table 3). The majority of respondents, 90.3% (*n* = 130), reported their highest level of education as a master's degree (see Table 3). Ninety-four percent (*n* = 136) were Caucasian, 3.5% (*n* = 5) were Hispanic/Latino, 1.4% (*n* = 2) were African American, and 0.7 % (*n* = 1) were Native American (see Table 3).

Table 3

Description of Sample

Variable	Description	*n*	*%*
Gender	Female	134	93.1
	Male	10	6.9
Race	Caucasian	136	94.4
	Hispanic/Latino	5	3.5
	African American	2	1.4
	Native American	1	.7

Approximately 8% (*n* = 12) of participants reported their highest level of education as a bachelor's degree and 1.4% (*n* = 2) reported holding a doctorate or PhD (see Table 4). Level of experience, measured in years, varied from 1 year of experience to 35 years of experience (*M* = 12.30, *SD* = 8.94) with a median of experience of 10 years (see Table 4). The majority of respondents, 31.9% (*n* = 46), had 5 or fewer years of experience. There was fairly even distribution of experience from 6 years to 25 years of experience, as demonstrated in Table 4. The fewest of respondents reported greater than 26 years of experience with 5.6% (*n* = 8) indicating 26–30 years of experience and 3.5% (*n* = 5) indicating 31–25 years of experience. There was somewhat equal distribution of participants reporting experience with a leadership course or training. The slight majority

of respondents, 51.4% (n = 74) reported that they had not attended a leadership training or course, whereas 48.6% (n = 70) reported having attended some kind of leadership course or training (see Table 4).

Table 4

Education and Experience Level

Variable	Description	*n*	*%*
Education level	Bachelor's degree	12	8.3
	Master's degree	130	90.3
	Doctorate, PhD	2	1.4
Experience level	1–5 years	46	31.9
	6–10 years	28	19.4
	11–15 years	20	13.9
	16–20 years	21	14.6
	21–25 years	16	11.1
	26–30 years	8	5.6
	31–35 years	5	3.5
Leadership course	Yes	70	48.6
	No	74	51.4

The LEQ consisted of 22 questions split into three subscales representative of leader efficacy, including leader action self-efficacy (M = 501.49, SD = 114.71), leader self-regulation efficacy (M = 641.48, SD = 113.21), and leader means efficacy (M = 499.00, SD = 507.00) that contribute to the full scale LEQ score (see Table 5). A perfect score for the full scale LEQ was 2200, and I found that the LEQ total score range in this study was 751 to 2150 (M = 1641.97, SD = 284.75). Each question was rated from 0-100, with higher ratings indicating a higher level of confidence in the survey prompt.

Table 5

LEQ Scale and Subscales

Variable	Mean	Median	*SD*
LEQ full scale	1641.97	1706.00	284.75
Leader action	501.49	520.00	114.71
Leader means efficacy	499.01	507.00	118.09
Leader self-regulatory efficacy	641.48	677.00	113.21

IIC scores ranged from 109 to 206 (*M* = 168.74, *SD* = 17.96) with a median score of 171 (see Table 6). Similar to the LEQ, there are several subscales within the IIC. Of the five subscales, the highest scoring mean subscale was interdependence (*M* = 55.50, *SD* = 5.64), followed by reflection on process (*M* = 41.01, *SD* = 6.23), collective ownership (*M* = 26.62, SD = 4.07), and newly created activities (*M* = 24.83, *SD* = 3.06), with the flexibility (*M* = 20.78, *SD* = 2.62) as the lowest mean scoring subscale (see Table 6).

Table 6

IIC Scale and Subscales

Variable	Mean	Median	*SD*
IIC full scale	168.74	171.00	17.96
Flexibility	20.78	21.00	2.62
Collective ownership	26.62	27.00	4.07
Reflection on process	41.01	41.00	6.23
Interdependence	55.50	57.00	5.64
Created professional activities	24.83	25.00	3.06

Scale Reliability

I ran Cronbach's alpha on each scale and subscale of the LEQ and the IIC to test the reliability of each scale. The LEQ, IIC, and their subscales were found to have high

levels of internal consistency (see Table 7). A higher value of Cronbach's alpha demonstrates a higher level of internal consistency although it is recommended that a good level is 0.7 or higher (DeVellis, 2003; Kline, 2005). I found an alpha coefficient of .925 for the cumulative LEQ scale, similar to previous studies, reporting a high level of internal consistency as determined by an alpha coefficient of .93 (Hannah et al., 2012). The alpha coefficient for the LEQ subscales of leader action self-efficacy, leader self-regulation efficacy, and leader mean efficacy from this study each demonstrated high levels of internal consistency as displayed in Table 7.

Table 7

Reliability of Leader Efficacy Questionnaire Subscales

Subscale	Cronbach's alpha	Cronbach's alpha based on standardized items	Number of items
Leader action self-efficacy	.907	.914	7
Leader self-regulation efficacy	.899	.904	8
Leader means efficacy	.844	.839	7

The IIC also demonstrated strong internal consistency with a full-scale alpha coefficient of .931 similar to the alpha coefficient of .92 from previous studies (Bronstein, 2002). I tested the internal consistency of each subscale of the IIC including interdependence, newly created professional activities, flexibility, collective ownership of goals, and reflection on process. Table 8 displays each subscale of the IIC demonstrating strong internal consistency as determined by their respective Cronbach's alpha.

Table 8

Reliability of the Index of Interdisciplinary Collaboration Subscales

Subscale	Cronbach's alpha	Cronbach's alpha based on standardized items	Number of items
Interdependence	.789	.809	13
Newly created professional activities	.721	.733	6
Flexibility	.644	.703	5
Reliability	.822	.828	7
Reflective process	.842	.845	11

Statistical Assumption Testing

Pearson correlation. Pearson correlation is a statistical test that generates a correlation coefficient representative of the strength and direction of the linear relationship between two continuous variables (Cohen, 1988). Data from the variables of LEQ, IIC, and years of experience met the first assumption required to run a Pearson's correlation to determine the strength, direction, and relationship between the variables to answer the research questions (Faraway, 2015). This is because the variables of the LEQ, years of experience, and the IIC are continuous variables (Myers, Well, & Lorch, 2010).

The LEQ, IIC, and the years of experience are variables that represent paired observations of the 144 survey participants meeting the second assumption required for Pearson correlation (Cohen, 1988; Myers et al., 2010). I analyzed a scatterplot to assess the linear relationship and found that there is a linear relationship between the variables meeting the third Pearson correlation assumption (see Figure 1). From visual inspection of the scatterplot there are not any significant outliers. To further verify the absence of

significant outliers, I ran descriptive statistics to calculate the mean and standard deviation of the LEQ and the IIC and found no outliers ± 3SD. Therefore, I can conclude this dataset meets the fourth assumption.

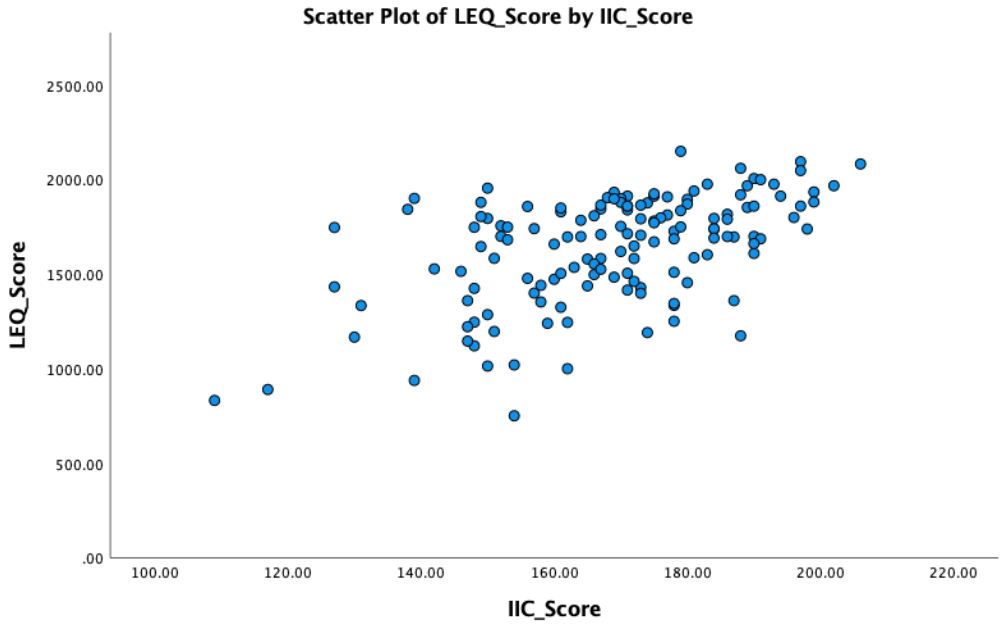

Figure 1. Scatterplot of ICC and LEQ.

Normality of the variables is the fifth assumption of Pearson correlation, demonstrating that the two variables are normally distributed (Faraway, 2015). To determine if the assumption of normality was met, I ran the Shapiro-Wilk test, which is a statistical test for normality (Myers et al., 2010). Not all variables were normally distributed, as assessed by Shapiro-Wilk's test ($p < .05$). However, it is common for larger sample sizes to lead to a non-normal distribution result from the Shapiro-Wilk's test even if they are, in fact, normally distributed (Cohen, 1988; Myers et al., 2010). Therefore, a Normal Q-Q Plot can assist with assessing the graphic normality of a dataset. The LEQ and IIC were normally distributed as assessed by visual inspection of

Normal Q-Q Plots meeting the final assumption for Pearson's correlation (see Figure 2 and Figure 3).

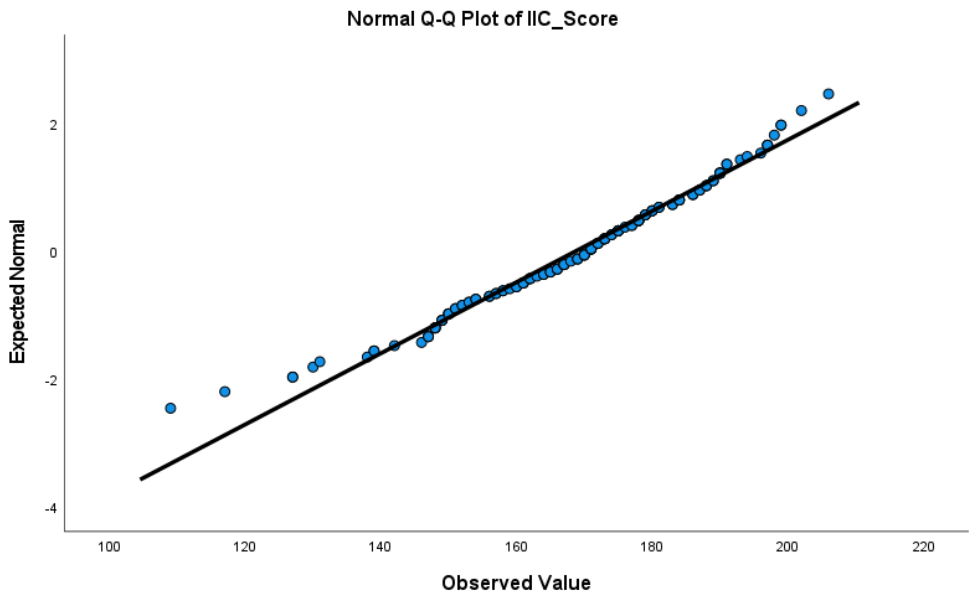

Figure 2. IIC normal Q-Q plot.

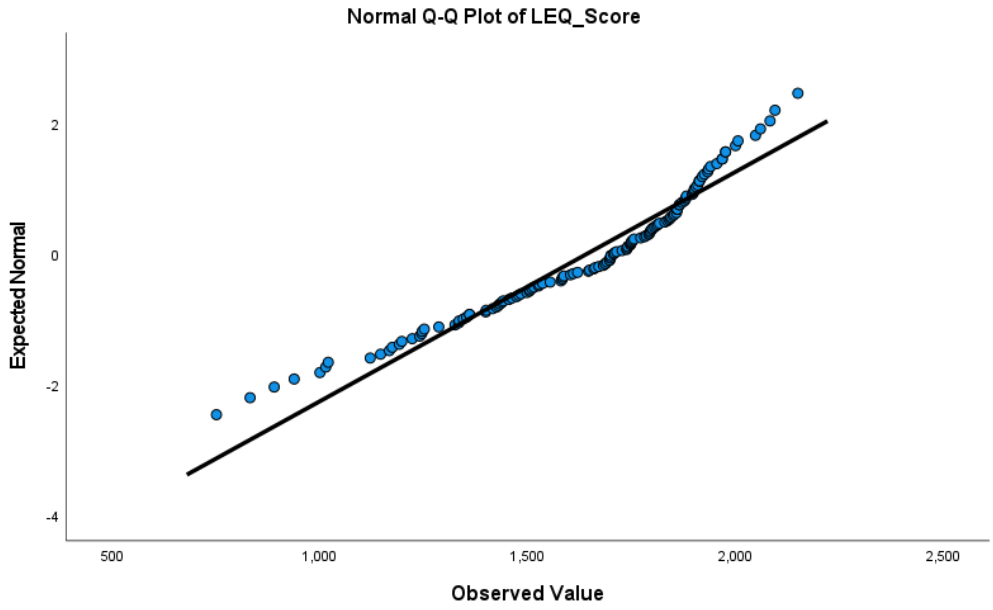

Figure 3. LEQ normal Q-Q plot.

Multiple regression. To answer the final research question, I conducted a multiple linear regression. A multiple linear regression is a statistical test that is used to predict or understand the relationship between a continuous dependent variable and multiple independent variables (Draper & Smith, 1998). It was necessary for certain assumptions to be met for the multiple linear regression in this study.

For this multiple regression, perceptions of interdisciplinary collaboration, as measured by the IIC was the dependent variable, or the outcome variable. The independent variables of leader self-efficacy, as measured by the LEQ, and years of experience are considered the predictor variables. This meets the criteria for the first and second assumptions of a multiple regression since a multiple regression requires a dependent variable and multiple independent variables (Laerd Statistics, 2015). I then tested to see how the data fits in the multiple regression model to determine if the data meets the last several assumptions including: independence of observations, a linear relationship between the dependent and independent variables, homoscedasticity of residuals, and a deficit of multicollinearity (Berry, 1993).

Independence of observations. Assumption three is the assumption of independence of observations in a multiple regression. This assumption is frequently tested by using the Durbin-Watson statistic, which is a test for autocorrelation or serial correlation (Draper & Smith, 1998). The Durbin-Watson values range from 0-4 with concerning values that are less than one and greater than three while scores closer to two indicate no correlation between residuals (Berry, 1993; Draper & Smith, 1998). I found independence of residuals, as assessed by a Durbin-Watson statistic of 2.086, suggesting

that the assumption for autocorrelation was met and there was no significant serial correlation.

Linear relationship. Next, I established that there was a linear relationship between the dependent and independent variables through plotting the studentized residuals against the unstandardized predicted values (see Figure 4). This was accomplished through a simple scatterplot analysis. Through visual analysis, I found that it is likely that there is a linear relationship between the dependent and independent variables due to the residuals forming a horizontal band (Berry, 1993).

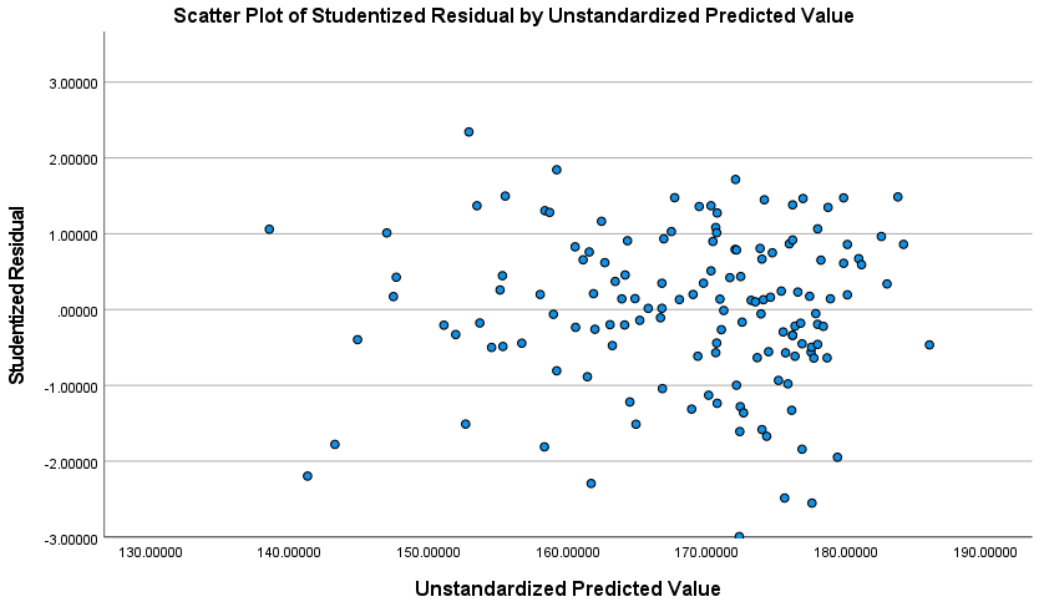

Figure 4. Scatterplot of unstandardized predicted value by studentized residual.

Homoscedasticity. Because I could assume that there was a linear relationship between the variables, I could then test for homoscedasticity. Homoscedasticity assumes that there is an approximate constant spread of residuals (Draper & Smith, 1998). There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. A scatterplot of the standardized residual errors

indicates a random pattern (see Figure 4). Therefore, the assumption of homoscedasticity was met and I was able to check the data for multicollinearity.

Multicollinearity. It is significant to assess for multicollinearity, or highly correlated independent variables, because this leads to incorrect results of linear regression analysis (Kim, 2019). I inspected the correlation coefficient and found a coefficient of .503 for the independent variable of LEQ and a coefficient of .166 for the independent variable of years of experience in correlation to the IIC. Neither of these independent variables had a correlation coefficient greater than 0.70; therefore, I checked the variance inflation factor (VIF), which measured the severity of multicollinearity in a linear regression analysis (Berry, 1993; Draper & Smith, 1998). The VIF value for the LEQ was 1.136 and for experience level was 1.136. These VIF values showed that the assumption for multicollinearity were met and that there was not a problem with multicollinearity in this data set (Berry, 1993; Draper & Smith, 1998).

Outliers. To determine if there were any outliers, I reviewed the studentized deleted residuals that were greater than ± 3 SDs. I was not able to find any significant outliers through visual inspection that could impact the statistical results. The Cook's distance statistical test measures high and low values, or outliers that can impact results (Cook & Weisberg, 1982). I found no concerns with leverage values since all Cook's distance values fell below 0.2 indicating that these values were safe (Huber, 1981). Therefore, I could conclude that there were no highly influential data points.

Normality. Lastly, I checked for normality through visual inspection of the regression standardized residual histogram (see Figure 5). Upon visual inspection it

appeared that there is approximate normalized distribution. The distribution of the standardized residuals revealed a normal distribution and displayed a bell-shaped curve. I confirmed distribution normality by reviewing the P-P plot (see Figure 6). The P-P plot of standardized residuals demonstrated that the standardized predicted values are normally distributed, random in nature, and indicate no violation of homoscedasticity. Based upon these visual inspections I can assume that there is no violation of normality and that all assumptions are met for the multiple linear regression (Laerd Statistics, 2015). Furthermore, after testing the multiple linear regression data assumptions through the multiple regression procedures, I was confident that the multiple linear regression was appropriate for the data in this study (Laerd Statistics, 2015).

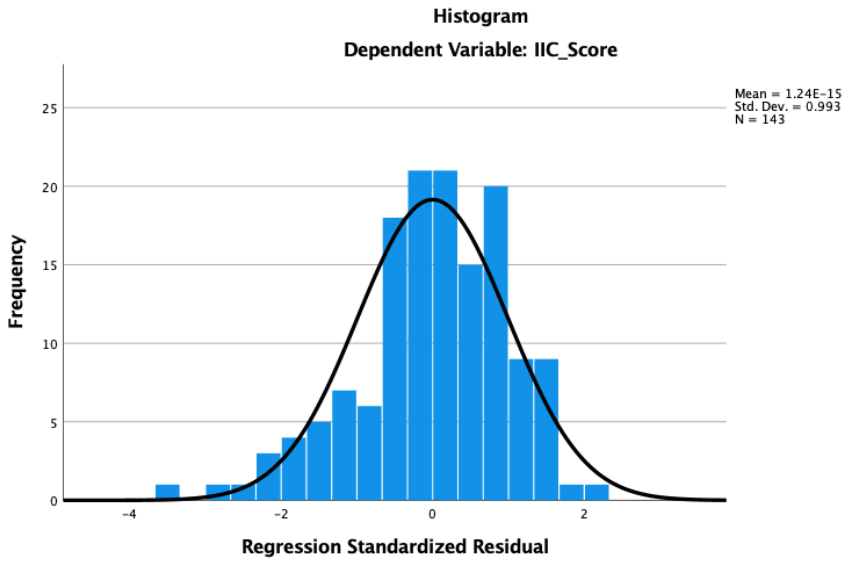

Figure 5. Residual histogram.

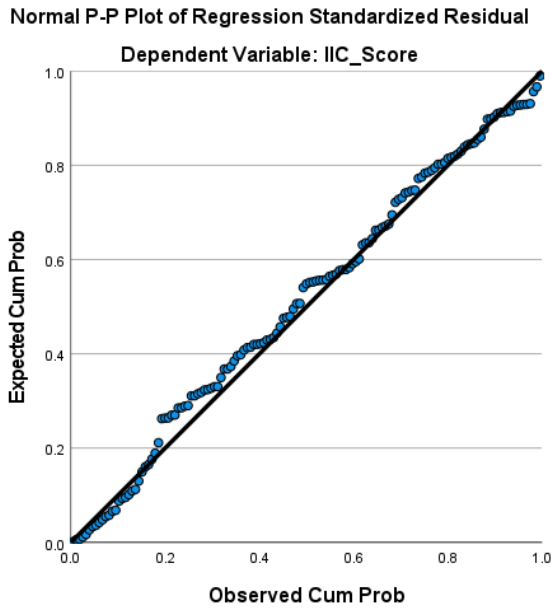

Figure 6. Normal P-P plot of the standardized residuals.

Research Questions and Hypothesis Testing

I conducted a data analysis for each research question and hypothesis in this study. RQ1 and RQ2 were tested with Pearson correlation, and RQ3 was tested with a multiple linear regression. I analyzed a total of 144 survey responses to answer the research questions and hypotheses.

Research Question 1/Hypothesis 1

RQ1: What is the relationship between the school social worker leadership self-efficacy as measured by the LEQ and perceptions of interdisciplinary collaboration as measured by the IIC?

$H_0$1: There is no positive relationship between the school social worker leader self-efficacy as measured by the LEQ and perceptions of interdisciplinary collaboration as measured by the IIC.

H_a1: There is a positive relationship between the school social worker leader self-efficacy as measured by the LEQ and perceptions of interdisciplinary collaboration as measured by the IIC.

A correlation matrix of the LEQ subscales and the IIC subscales demonstrated the correlation coefficients between each subscale. The LEQ subscales of leader action (LEQ1), leader means efficacy (LEQ2), and leader self-regulatory efficacy (LEQ3) are presented along with the subscales of the IIC which include interdependence (IIC1), newly created professional activities (IIC2), flexibility (IIC3), collective ownership (IIC4), and reflection on process (IIC5). This matrix indicated that there is a positive correlation between the subscales of the LEQ and the IIC (see Table 9). I found these correlations to be statistically significant with $p < .001$.

Table 9

Correlation Matrix

Subscale	LEQ2	LEQ3	IIC1	IIC2	IIC3	IIC4	IIC5
LEQ1	.347	.782	.442	.307	.229	.395	.367
LEQ2		.429	.314	.364	.264	.455	.338
LEQ3			.459	.392	.273	.399	.364
IIC1				.686	.542	.572	.591
IIC2					.531	.649	.585
IIC3						.506	.448
IIC4							.766

Note. All relationships statistically significant; $p < .001$

I ran a Pearson correlation to assess the relationship between leadership self-efficacy, measured by the LEQ, and perceptions of interdisciplinary collaboration, measured by the IIC. I found a positive correlation between the LEQ and the IIC as evidenced by the positive Pearson correlation coefficient. The Pearson correlation

coefficient determined the strength and correlation of the variables with a greater co-efficient demonstrating a stronger correlation (Cohen, 1988).

There was a strong positive correlation between leadership self-efficacy as measured by the LEQ and perceptions of interdisciplinary collaboration as measured by the IIC, r =.54. The coefficient of determination is $.538^2 = .29$, or 29%. Therefore, leadership self-efficacy, as measured by the LEQ, statistically explained 29% of the variability of perceptions of interdisciplinary collaboration measured by the IIC. These results were found to be statistically significant, $p < .01$ indicating a strong positive correlation between leadership self-efficacy and perceptions of interdisciplinary collaboration, $r(142) = .54$, $p < .001$. For that reason, we can reject the null hypothesis and accept the alternative hypothesis that there is a positive relationship between the school social worker leader self-efficacy as measured by the LEQ and perceptions of interdisciplinary collaboration as measured by the IIC.

Research Question 2/Hypothesis 2

RQ2: What is the relationship between school social worker level of experience, measured in years, and perceptions of interdisciplinary collaboration measured by the IIC?

$H_0$2: There is no positive relationship between school social worker level of experience, measured in years, and perceptions of interdisciplinary collaboration measured by the IIC.

H_a2: There is a positive relationship between school social worker level of experience, measured in years, and perceptions of interdisciplinary collaboration measured by the IIC.

I ran a Pearson correlation to assess the relationship between the school social worker level of experience, a continuous variable measured in years, and perceptions of interdisciplinary collaboration as measured by the IIC. There was a positive correlation between social worker experience level, measured in years, and perceptions of interdisciplinary collaboration measured by the IIC as evidenced by the positive Pearson correlation coefficient. This was a small positive correlation determined by the Pearson coefficient, $r = .18$. The coefficient of determination is $.182^2 = .033$, or 3.3%. Social work years of experience statistically explained 3.3% of the variability of perceptions of interdisciplinary collaboration as measured by the IIC. I found these results to be statistically significant, $p < .01$ demonstrating a small positive correlation between social work experience, measured in years, and perceptions of interdisciplinary collaboration as measured by the IIC, $r(142) = .18$, $p < .001$. Therefore, we can reject the null hypothesis and accept the alternative hypothesis that there is a positive relationship between the school social worker experience, measured in years, and perceptions of interdisciplinary collaboration as measured by the IIC.

Research Question 3/Hypothesis 3

RQ3: What is the extent to which school social worker level of experience, measured in years, and school social worker leader self-efficacy measured by the LEQ, predict perceptions of interdisciplinary collaboration as measured by the IIC?

$H_0$3: There is no positive relationship between school social worker level of experience, measured in years, school social worker leader self-efficacy as measured by the LEQ, and perceptions of interdisciplinary collaboration as measured by the IIC.

Ha3: There is a positive relationship between school social worker level of experience, measured in years, school social worker leader self-efficacy as measured by the LEQ, and perceptions of interdisciplinary collaboration as measured by the IIC.

I performed a multiple linear regression to analyze the extent to which school social worker level of experience, measured in years, and school social worker leader self-efficacy as measured by the LEQ, predict perceptions of interdisciplinary collaboration as measured by the IIC. The model summary provided the multiple correlation coefficient, or Pearson's coefficient, of .538. This showed a moderate level of association since 0 indicates no linear association and 1 indicates a perfect linear association (Draper & Smith, 1998).

The coefficient of determination, also known as R_2 measures the proportion of variance seen in the dependent variable of the IIC that can be explained by the independent variables of years of experience and leadership self-efficacy as measured by the LEQ (Laerd Statistics, 2015). The R^2 equaled .577, meaning that the independent variables of years of experience and leadership self-efficacy explained 57.7% of variance in the dependent variable of perceptions of interdisciplinary collaboration as measured by the IIC. R^2 for the overall model was 57.7% with an adjusted R^2 of 55.9%, a moderate size effect, according to Cohen (1988).

A p value < .001 indicated there is statistical significance in this multiple regression model. This means that the addition of the independent variables of years of experience and leadership self-efficacy as measured by the LEQ lead to a model that predicts interdisciplinary collaboration as measured by the IIC (Laerd Statistics, 2015). Therefore, years of experience and leadership self-efficacy demonstrated to statistically significantly predict perceptions of interdisciplinary collaboration as measured by the IIC, $F(2, 140) = 28.484$, $p < .001$.

These results demonstrated the overall model fit for the regression model allowing me to interpret and report the regression model coefficients (Laerd Statistics, 2015). The constant, or the intercept, is the value of the dependent variable of IIC when all the independent variables of the LEQ and experience level is zero. Demonstrating statistical significance, the constant for the IIC was 112.977 (SD = 7.538) with $p < .001$ (see Table 10).

Table 10

Multiple Regression Predicting Interdisciplinary Collaboration

	B	SE	Sig.
Constant	112.977	7.538	< .001
LEQ score	.034	.005	< .001
Experience level	-.014	.152	.929

Slope coefficient values for the independent variables are presented in Table 10. The coefficient for leadership self-efficacy as measured by the LEQ is .034 indicating the change of the dependent variable, the IIC score, for one unit of change in the LEQ score (see Table 10). For that reason, every unit increase in the LEQ score produced a positive

change of .034 in the IIC score. There is 95% confidence that the coefficient value for the LEQ is between .025 and .044 and the slope coefficient is statistically significant with a *p* value of < .05. There was no difference between more and less experienced school social workers as measured by the IIC. The slope coefficient value for experience level was -.014; however, this was not a statistically significant finding with a *p* value of > .05 (see Table 10).

Due to the findings from the multiple regression, the null hypothesis was partially rejected. Multiple linear regression revealed that controlling for the effects of school social work experience, the LEQ was found to significantly predict the IIC. These results indicated that there is a statistically significant positive relationship between leadership self-efficacy and perceptions of interdisciplinary collaboration and no difference between experience level and the ICC. Therefore, the alternative hypothesis was partially accepted since the independent variable of leadership self-efficacy measured by the LEQ demonstrated to statistically significantly predict perceptions of interdisciplinary collaboration as measured by the IIC.

Summary

In Section 3, the data collection process was discussed along with the results from this study. Data were analyzed from the survey responses from 144 school social workers in the Midwestern United States. I discussed analysis techniques, including recruitment, response rate, data analysis procedures, validation, and limitations of the study. Evaluation of the statistical assumptions for analysis methods was explored and evidenced. I used the data to examine the relationship between the dependent variable of

perceptions of interdisciplinary collaboration and the independent variables of experience level and leader self-efficacy. Lastly, the findings of the study were presented including descriptive and statistical findings as organized and guided by the research questions.

Results indicated that there is a statistically significant positive relationship between leader self-efficacy and perceptions of interdisciplinary collaboration; therefore, the alternative hypothesis was accepted. I also found that there is a statistically significant correlation between school social worker years of experience and perceptions of interdisciplinary collaboration; although, this finding was modest. This allowed for the acceptance of the alternative hypothesis for RQ2. The results for RQ3 demonstrated that school social work leadership self-efficacy has a strong, positive relationship to perceptions of interdisciplinary collaboration. However, I found that there is no difference between less experienced and more experienced school social workers as measured by the IIC. Therefore, the alternative hypothesis for RQ3 was partially accepted. The interpretation of the findings, recommendations for future research, and implications for social change are discussed in Section 4.

Section 4: Application to Professional Practice and Implications for Social Change

The purpose of this quantitative study was to explore the relationship between social worker leadership self-efficacy and perceptions of interdisciplinary collaboration. Literature showed that a social worker with increased self-efficacy is better equipped for transformational leadership in the context of interdisciplinary collaboration (Hesbol, 2019). I hypothesized that leadership self-efficacy contributes to perceptions of interdisciplinary collaboration. Self-efficacy theory and transformational leadership theory constituted the conceptual framework in this quantitative study, guiding the collection and interpretation of data.

Previous studies have indicated deficits exist in social work training and education related to leadership and interdisciplinary collaboration despite being considered core competencies of social work practice (Beddoe, 2019; Elswick, Cuellar, Williams, et al., 2018, Peters, 2018). This research built on previous knowledge on school social work practice while contributing to informing school and community leaders regarding potential barriers to effective interdisciplinary collaboration. The ultimate goal of this research was to inform social work education, school-based collaborative care policies, decision-making protocols, and school social work best practices (Lyon et al., 2016).

A sample of 144 school social workers in the Midwestern United States participated in this study. I found a positive relationship between school social worker leader self-efficacy and perceptions of interdisciplinary collaboration. There was also a small positive correlation between school social worker experience in years and

perceptions of interdisciplinary collaboration. Through multiple linear regression, I found a positive relationship between leader self-efficacy and perceptions of interdisciplinary collaboration; however, I also found that experience level was not a significant predictor of interdisciplinary collaboration.

In this chapter, I further summarize the findings of this research study. This includes a summary, discussion, and interpretation of findings. I review any problems or limitations related to this study along with recommendations for future research. Finally, I discuss the recommendations for social work practice and the implications for social change.

Interpretation of Findings

My interpretation of the findings is based on the data collection and analysis. Social work leadership is an emerging genre of literature, although there is a scarcity of social work leadership research that is contextually relevant to school social work practice (Elswick, Cuellar, Williams, et al., 2018; Peters, 2018). Similarly, there is a wealth of social work research regarding interdisciplinary collaboration but far less related to interdisciplinary practices for social workers in the school setting. The findings from this study mirror previous research indicating a relationship between self-efficacy and leadership (Bandura, 1997; Hannah et al., 2008; Paglis & Green, 2002) and a relationship between leadership and interdisciplinary collaboration (Avant & Swerdlik, 2016; Beddoe, 2019; Elswick, Cuellar, Williams, et al., 2018; Gherardi & Whittlesey-Jerome, 2018). Nonetheless, I was unable to find any literature related to the relationship

between self-efficacy, leadership, and interdisciplinary collaboration in the context of school social work practice.

This study was guided by three research questions related to leadership self-efficacy, perceptions of interdisciplinary collaboration, and years of experience. Self-efficacy theory and transformational leadership theory provided the conceptual framework for this study. Bridging self-perception, behaviors, and performance, self-efficacy lends to increased leadership capabilities (Bandura, 1982). This aligns well with transformational leadership theory because increased self-efficacy contributes to traits characteristic of transformational leadership (Bobbio & Manganelli, 2009; Hannah et al., 2008). In the following section, I present an interpretation of the findings relevant to each variable related to the research questions and theoretical foundation of the study.

Theoretical Foundation

Self-efficacy theory asserts that one's perceptions of their ability to perform behaviors produces desired outcomes; therefore, the central concept is a personal belief of successful performance (Bandura, 1977, 1993; Bandura & Locke, 2003, Gist & Mitchell, 1992). The concepts of self-efficacy provide a foundation for leadership, engaging skills related to problem-solving, decision-making, and critical thinking (Bandura, 1989; Hannah et al., 2012). Individuals with an increased level of self-efficacy embody emotional intelligence, heightened cognitive abilities, increased motivation, resiliency, and confidence (Bandura, 1997; Bandura & Locke, 2003; Hannah et al., 2012).

The qualities representative of a high level of self-efficacy contribute to and characterize transformational leadership, which creates more confidence in knowledge, skills, and abilities (Bandura & Locke, 2003; Mason et al., 2014). Furthermore, the values of transformational leaders align closely to social work values through promoting inclusive and empowering shared leadership opportunities (McDermott & Bawden, 2017; Peters, 2018). Most importantly, self-efficacy theory and transformational leadership theory provide insight to the values, beliefs, attributes, and behaviors that enable successful school social work leadership and multidisciplinary collaboration (Bandura, 1997; Bobbio & Manganelli, 2009; Mason et al., 2014; Ng & Chan, 2008).

Leader Self-Efficacy

In this study, I hypothesized a positive relationship between leader self-efficacy and perceptions of interdisciplinary collaboration. The hypothesis was supported by the assumptions of transformational leadership theory and the concept of self-efficacy theory, suggesting that a social worker with increased self-efficacy is situated to provide transformational leadership within the context of interdisciplinary collaboration. Findings from this study support this hypothesis, demonstrating a strong positive relationship between the leadership self-efficacy of a school social worker and perceptions of interdisciplinary collaboration.

These results are consistent with findings from previous studies related to self-efficacy and transformational leadership. Previous researchers found that individuals with a high level of self-efficacy are self-perceptive and able to provide direction to groups and motivate others (Bandura, 1997; Bandura & Locke, 2003; Hannah et al., 2012).

Similar to other research, I found that the qualities associated with school social worker increased self-efficacy are predictive of positive group performance (Bobbio & Manganelli, 2009; Hannah et al., 2008, 2012). Exploring the LEQ in more detail uncovers the specific self-efficacy qualities that contribute to the self-efficacy of the school social workers who participated in this study.

Interestingly, the lowest mean subscale score of the LEQ was the leader means efficacy subscale (M = 499.00, SD = 507.00). The leader means efficacy subscale assessed the school social workers' perceptions of their ability to draw on senior leadership, work environment, and the organization to enhance their own leadership (Hannah & Avolio, 2013). Specifically, the leader means efficacy subscale assessed how the components of the organization enhance and leverage the leadership capabilities of the school social worker (Hannah & Avolio, 2013).

Exploring the subscales within the LEQ provides additional insight into the characteristics that influence perceptions of interdisciplinary collaboration. Brake and Kelly (2019) found that school social workers reported feeling marginalized in their roles, consequently impacting their confidence and overall efficacy. This could be a result of lack of recognition for the potential contributions of school social workers, particularly related to the compartmentalized and ambiguous nature of the social worker function and role (Brake & Kelly, 2019; Sherman, 2016, Webber, 2018). Navigating role and identity is a struggle for social workers to overcome, requiring school social workers to advocate for their role legitimacy through strategic, innovative collaboration (Kelly, 2015; Peters, 2018; Teasley, 2018). Role advocacy and identity often require an increased level of

leadership capabilities to establish communication, increase dialogue, and develop relationships with school administrators (Gherardi & Whittlesey-Jerome, 2018; Richard et al., 2019).

Examining the results of the leader means efficacy subscale of the LEQ indicated that more experienced school social workers perceive that school districts struggle to provide resources for success, guidance for professional growth, or opportunities to develop their own leadership capabilities (Hannah & Avolio, 2013). However, this result leaves unanswered questions as to why more experienced social workers report less resources and guidance from administrators for their leadership capabilities. This perceived lack of support is noteworthy because of the predictive nature of leadership self-efficacy to the perception of interdisciplinary collaboration.

Perception of Interdisciplinary Collaboration

Embedded in the IIC are five subscales measuring interdependence, newly created professional activities, flexibility, collective ownership, and reflection on process (Bronstein, 2002). Overall scores indicate that the school social workers who participated in this study perceive overall high levels of interdisciplinary collaboration. Scores from the interdependence subscale suggest that school social workers perceive higher levels of teamwork, collaboration, and communication with other disciplines in the school setting. This is significant because models of interdisciplinary collaboration rely on the concept of interdependence, or reliance on other professionals, to foster relationships and increased communication necessary for collaborative processes (Bronstein, 2002; Rearick, 2007).

Flexibility was the lowest rated subscale. This is an interesting finding because of the relationship between flexibility and interdependence. Flexibility builds on interdependence, engaging the ability for one to modify their behaviors and compromise when faced with challenges (Bronstein, 2002). On the other hand, inflexibility lends to siloed service delivery rather than collaborative complex problem-solving (Avant & Swerdilk, 2016; Teasley, 2018). Individuals with increased self-efficacy demonstrate a higher level of flexibility, which is considered a characteristic of self-efficacy and considered a core competency of effective interdisciplinary collaboration (Paglis & Green, 2002). I found that school social workers reported high levels of teamwork and cooperation but identified challenges related to flexibility, specifically within the context of the social work role (Bronstein, 2002).

Charles (2018) and Frauenholtz et al. (2017) suggest that school administrators define and set the tone for collaborative processes, although school social workers are infrequently recognized for their contributions to interdisciplinary collaboration (Stone & Charles, 2018). To further explore how these concepts impact collaborative practices, I performed a Pearson correlation to determine if there is a relationship between the leader mean efficacy scale of the LEQ and the flexibility subscale of the IIC. I found a statistically significant, moderate positive correlation between the leader mean efficacy subscale score of the LEQ and the flexibility scale of the IIC, $r(142) = .26$, $p < .001$, with the leader mean efficacy subscale explaining 6.8% of the variation in the flexibility subscale of the IIC. Therefore, a school social worker's perceptions of their

organizational supports and leadership have a positive relationship with their perceptions of flexibility within interdisciplinary collaboration.

Experience Level

Experience level is frequently associated with increased knowledge, skills, and confidence in abilities. Social work standards of practice emphasize the importance of experienced supervision to develop competency and ethical behaviors (NASW, 2017). In testing RQ2, I found a modest relationship between years of experience and perceptions of interdisciplinary collaboration. However, I found no relationship between experience level and perceptions of interdisciplinary collaboration in the multiple regression. Therefore, I concluded that although there is some substantiation that experience impacts perceptions of interdisciplinary collaboration, overall experience level does not bear much influence on perceptions of interdisciplinary collaboration.

Differing from the results of this study, I hypothesized that years of experience, or experience level, would be predictive of an increased positive perception of interdisciplinary collaboration. This hypothesis was based on social work standards for practice that stress the significance of social workers developing competence in their knowledge, skillset, and abilities (NASW, 2012, 2017). State licensing boards require meeting minimum competencies for licensure, which includes meeting a set number of supervised clinical hours prior to receiving full licensure. These requirements suggest that years of experience allow for development of skills, knowledge, and competency; however, they do not necessarily impact perceptions related to their abilities.

Application to Professional Ethics in Social Work Practice

Social work practice is guided by ethical standards reflective of the foundational principles and values of social work practice (NASW, 2012, 2017). These principles provide the framework for ethical procedures, scope of services, conduct, and decision-making processes (NASW, 2017). School social work is a complex, fluid, and specialized social work practice with multiple practice domains guided through these principles (NASW, 2012). Furthermore, professional ethics and standards provide insight into the skillset, knowledge, values, and procedures of social work practice (NASW, 2012, 2017).

The results from this study provide many opportunities for the application of professional ethics in school social work practice, specifically related to interdisciplinary collaboration and leadership. Interdisciplinary collaboration is embedded in the principles of social work and defined as a school social work competency standard (NASW, 2012, 2017). The behaviors and skills associated with interdisciplinary collaboration necessitate leadership capabilities that demonstrate the values and ethics of social work while understanding the values and ethics of other professions (Jones & Phillips, 2016). These concepts align with the findings of this study that indicate a positive relationship between leadership self-efficacy and perceptions of interdisciplinary collaboration.

Working within a host environment, school social workers frequently rely upon interdisciplinary work to provide unique perspectives and create innovative solutions to the complex problems faced by students and families (Ambrose-Miller & Ashcroft, 2016; Dobrof et al., 2019; Sherman, 2016). Yet, there are challenges related to interdisciplinary collaboration which are directly associated to the barriers faced by school social workers

related to working in a host environment. These barriers have the potential to impact their self-efficacy and perception of collaboration with others. This requires social workers to be aware of their contributions to interdisciplinary collaboration ensuring that these interactions follow the principles and ethical standards of the social work profession. Furthermore, school social workers must embrace and model the values and principles that guide ethical decision making while overcoming challenges and barriers to effective interdisciplinary collaboration (NASW, 2012, 2017).

School social workers provide direct and indirect services to students, families, and educators through education, advocacy, and social justice (NASW, 2012). But, a lack of role clarity can cause miscommunication, conflicts, and stress that impacts the quality and satisfaction of their work (Museux et al., 2015; Stone & Charles, 2018). This study showed that school social workers are highly collaborative, but they have lower perceptions of flexibility within interdisciplinary collaboration, suggesting that social workers are faced with specific challenges related to the organization that their perception of collaboration with others.

The NASW Code of Ethics (2017) identifies interdisciplinary collaboration as a collaborative process that draws upon multiple perspectives, experiences, and values to promote self-determination and wellness. The process of interdisciplinary collaboration alone allows for social workers to model ethical behaviors and indirectly lead reflective practices including open dialogue, feedback, and emotional processing (Cano, 2019; Jones & Phillips, 2016; Peters, 2018). Therefore, school social workers provide leadership in facilitating collaboration with other professionals to encourage an

understanding of the unique factors that contribute to the educational attainment of students (NASW, 2012).

Recommendations for Social Work Practice

The findings from this study build upon previous research related to school social work leadership and interdisciplinary collaboration. Previous studies revealed deficits in social work training, education, and continuing education that enhances interdisciplinary and leadership skills (Beddoe, 2019; Elswick, Cuellar, Williams, et al., 2018; Peters, 2018). This study highlights the need for additional school social work leadership research, increased education and training for school social workers in concepts of leadership and interdisciplinary collaboration, and continued advocacy for the school social practice.

School Social Work Leadership Model

Results from this study showed a strong relationship between social work leadership qualities and interdisciplinary collaboration. However, there is limited contextually relevant literature related to school social work leadership. This is problematic because leadership in schools is critical to the success of a school social worker (Peters, 2018, Vito, 2019). Although there are emerging school social work models, these models are not specific to school leadership or interdisciplinary collaboration. However, activities and functions within the school social work models are representative of leadership and multidisciplinary collaboration.

Current school social work practice models do not include a school social work leadership framework. However, literature shows that this leadership framework would

span multiple domains to encompass leadership practice behaviors representative of the complex nature of school social work practice (Elswick, Cuellar, Williams, et al., 2018). Research related to school social work leadership is scarce, mostly concept-based, and lack clarity (Rank & Hutchinson, 2000; Vito, 2019).

I recommend that school social workers continue scholarly research related to school social work leadership practices. Further development and refinement of a framework for school social work leadership is necessary to enhance school social work practice and provide opportunities for school social workers to understand and develop competencies and skills for successful leadership. Through developing this framework, school social workers will have more practice guidance and support which would prove to be a significant contribution to school social work practice.

Education and Training

Developing school social work practice models indicate the need for increased understanding and knowledge and skills related to effective leadership (Elswick, Cuellar, & Mason, 2018; Gherardi & Whittlesey-Jerome, 2018; Peters, 2018). I found a positive correlation and predictive relationship between leadership self-efficacy and perceptions of interdisciplinary collaboration. Therefore, increasing education and training related to leadership will better prepare school social workers for leadership opportunities, specifically those opportunities related to collaboration with other professionals.

Social work leadership skills are typically underdeveloped and do not provide adequate preparation for leadership. Less than 50% of the participants in this study indicated that they had attended a leadership course or training. Previous studies have

found that social workers lack leadership training and indicated a need for formalized ongoing leadership development (Brake & Kelly, 2019; Cano, 2020). Furthermore, there is a need for increased leadership practice knowledge at the individual, mezzo, and macro levels of practice relevant to the educational setting (Brake & Kelly, 2019; Gilliam et al., 2016). The findings from this study reinforce the significance of leadership education and training to better prepare school social workers for effective interdisciplinary collaboration.

My recommendations mirror the recommendations from previous studies citing the significance of increased leadership and interdisciplinary collaboration coursework in social work programs. Not only is it necessary to increase leadership coursework in social work education, but it is also necessary to provide education and ongoing training to build interdisciplinary collaboration skills. Based upon the findings of this study and previous literature, I recommend that social workers participate in ongoing training, education, and skill building related to topics that enhance leadership and interdisciplinary collaboration. This continuing education must provide knowledge and skill building related to the core competencies of collaborative practice models that reflect upon the social work ethical standards and principles of practice (Jones & Phillips, 2016; NASW, 2012; Stone & Charles, 2015).

School Social Work Role Advocacy

The findings in this study reinforced that a lack of recognition of the school social worker role, function, and contributions often leads to decreased confidence related to leadership and interdisciplinary collaboration with others (Brake & Kelly, 2019;

Sherman, 2016). This study shows the need for increased advocacy of the school social work role. Building relationships with administrators and engaging in strategic leadership related to interdisciplinary collaboration can contribute to advocacy for the school social work role (Teasley, 2018).

There is confusion related to school social work practice requiring advocacy to promote a better understanding of the potential contributions of a school social worker in the educational system (Ayasse & Stone, 2017; Crutchfield & Richard, 2016; Miller et al., 2018). This is exacerbated by a lack of role clarity as result of variance in functioning related to the organizational factors, population served, and most significantly through the direction of school administration (Bent-Goodley, 2018; Gherardi & Whittlesey-Jerome, 2017, Lyon et al., 2016; Teasley, 2018). Therefore, it is recommended for school social workers to develop relationships with school administration to provide a voice for advocacy related to student and family needs, educational policies, and the school social work role (Richard et al., 2019).

Lack of understanding of the school social worker's function creates a narrow role description which reduces visibility and effectiveness (Ciffone, 2017; Sherman, 2016). Through exploring strategic leadership opportunities through system change such as RTI and MTSS, school social workers can increase visibility and recognition for collaborative practices that contribute to education-based interdisciplinary collaboration (Avant & Lindsey, 2016; Gherardi & Whittlesey-Jerome, 2017; Sherman, 2016). Structured collaboration with educators provides another avenue to increase professional efficacy

and leadership through shared knowledge in collaborative problem-solving (Brake & Kelly, 2019; Diaz, 2015).

It is hoped that through advocacy that school social workers will be recognized for their leadership skills and abilities and assume more leadership responsibilities and roles within educational systems. Increasing social work leadership in education would also prioritize and enable the success of school social workers through providing increased supervision, support, and modeling of behaviors that align with social work values, principles, and ethics (NASW, 2013; Vito, 2015). These practices in turn have the potential to increase school social worker efficacy and confidence in abilities.

Implications for Advanced Practice

As a social work practitioner, this study provides valuable information that proves to impact advanced practice in the field of school social work. Understanding the relationship between leadership self-efficacy and interdisciplinary collaboration provides an opportunity to evaluate the components that contribute to successful school social work practice. Identifying skill deficits related to building efficacy and enhancing collaboration allows for a critical self-reflection and an avenue to gain professional insight and growth.

Also evident is the implication for advancing the school social worker role in school based collaborative practices. The information uncovered in this study sets the stage for future research to develop school-based collaborative care policies and best practices for school social work. However, the correlative and predictive nature between the variables of leadership self-efficacy and perceptions of interdisciplinary collaboration

leave many unanswered questions related to the specific characteristics that contribute to the relationship between the LEQ and the IIC.

Most importantly, social work practice can benefit from the results of this study. The information uncovered is contextualized to school social work practice but opens the door for future research in other contexts. This study only explored the relationship and predictive nature of the LEQ, years of experience, and the IIC. There is a great wealth of information uncovered by the LEQ, IIC, and the subscales. Exploring the concepts of this study through qualitative research would uncover more specific knowledge, insight, and understanding not captured through quantitative methods.

Limitations

There were limitations to this study that are necessary to explore further. During data collection it became evident that the sample size in this study may not be representative of all school social workers in the Midwestern United States. I also suspect that my sample size was quite small, and it is unknown how many social workers received the survey due to the distribution method. This is of concern since the sample size can impact that generalization and transferability of the study results. Furthermore, there were 57 incomplete survey attempts representing 57 potential participants that may have produced valuable information for this study.

It is unknown if all eligible school social workers received the survey. No responses were collected from Iowa and Ohio suggesting that these states did not receive the email invitation. There were very few responses received from Kansas, Indiana, Michigan, and Kentucky suggesting that distribution was problematic in those states also.

This greatly impacts the generalization of the study since it is unknown how representative the sample is of the population.

The sample represented very little diversity. It is possible that the results from this study would have had different outcomes depending upon the increased diversity. The study participants were school social workers in the Midwestern United States including urban and rural communities. This is significant since the difference between communities may impact survey results and outcomes of the study. Finally, different areas of the country may have geographically specific differing outcomes.

Lastly, the information received from the LEQ and the IIC scales do not fully capture an understanding of the factors that contribute to leadership self-efficacy and perceptions of interdisciplinary collaboration. Scales are not able to generate a deeper meaning and understanding of specific reasons for the subjective ratings in the scale. Further qualitative research could explore these concepts in more detail related to the context of school social work practice.

Implications for Social Change

The findings of this study have implications for social change across multiple domains of social work practice. This is because school social workers engage in multidisciplinary and leadership practices in the micro, mezzo, and macro levels (Elswick, Cuellar, & Mason, 2018; Peters, 2018). Understanding the impact school social work leadership, specifically in multidisciplinary collaboration, provides an avenue for social workers to further social advocacy related to the unique needs faced by students and families in the educational system.

There is also potential for social change at the organizational level within school districts as result of this research. Through increasing leadership capabilities, school social workers are placed in a position to advocate for policies that directly impact students and school social work practice as a whole. This study showed the need for increased school social work leadership and the significance of social work driven multidisciplinary collaboration in the educational system.

The information from this study may prove beneficial to school administrators who are often tasked with supervising social workers in the host environment of the school system. Administrators would benefit from an increased understanding of the knowledge, skillset, and potential contributions of school social workers. Disseminating information from this study to school administrators will enhance their capabilities as leaders and advocate for the school social work role.

It is also important to disseminate the findings from this study to school social workers. As stated earlier, this research provides an opportunity for school social workers to reflect upon their leadership skills and deficits and how they relate to perceptions of interdisciplinary collaboration. School social workers can use this knowledge to develop trainings and continuing education to further advance school social work practice. Furthermore, the findings from this study have implications for future research that will expand on contextually relevant social work leadership knowledge.

There was a gap in literature related to the relationship of school social worker self-efficacy to perceptions of interdisciplinary collaboration. I hope that this research lays the foundation for further research to develop school-based collaborative care

policies and best practices to enhance social work practice in schools. This research has the potential to influence social work education programs to incorporate more education for interdisciplinary collaboration and leadership to better prepare social workers for practice in educational systems.

Summary

The majority of childhood mental health concerns are identified at schools which frequently requires the services, coordination, and support of multiple disciplines to develop effective intervention strategies (Cree et al., 2018; Lyon et al., 2016). Collaborative interdisciplinary practices have demonstrated effectiveness and increased outcomes in multiple settings. School social workers bring unique, yet under recognized knowledge, skillset, perspectives, and abilities, placing them in a position to effectively demonstrate their leadership capabilities within these collaborative processes.

This study shows the significance of leadership self-efficacy in promoting effective interdisciplinary collaboration. School social workers with a higher level of leadership self-efficacy report an increased perception of their work with colleagues from different professions in the educational system. The findings from this study support the hypothesis revealing that leadership self-efficacy is highly correlated and predicative of perceptions of interdisciplinary collaboration.

There continues to be a lack of recognition of school social workers which often leads to decreased confidence and self-efficacy. Identifying the relationship between self-efficacy and interdisciplinary collaboration emphasizes the external challenges faced by social workers in school-based collaboration. As the school social work role evolves and

expands, it becomes necessary for social workers to understand the role of self-efficacy on leadership and how that translates to effective collaboration with other professionals. This will provide school social workers with more opportunities to become catalysts for social change.

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Appendix A: Leader Efficacy Questionnaire (LEQ)

Leader Efficacy Questionnaire – Self Form

Sample Questions:

As a Leader I can. . .

Energize my followers to achieve their best

Develop agreements with followers to enhance their participation

Coach followers to assume greater responsibilities for leadership

Appendix B: LEQ Permission

Megan Pendley

mind garden

To whom it may concern,

This letter is to grant permission for Megan Pendley to use the following copyright material for his/her research:

Instrument: **Leader Efficacy Questionnaire**

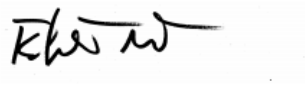
Authors: **Sean T. Hannah and Bruce J. Avolio.**

Copyright: **Leader Efficacy Questionnaire Copyright (c) 2013 by Sean T. Hannah and Bruce J. Avolio.**

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

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

Sincerely,



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Appendix C: Index of Interdisciplinary Collaboration (IIC)

Index For Interdisciplinary Collaboration

42 item scale (eliminating * items) shows slightly better internal consistency than this 49 item instrument. 5 point scale (agree/disagree)

1. I utilize other (non-social work) professionals for their particular expertise.

2. I consistently give feedback to other professionals in my setting.

3. Other (non-social work) professionals in my setting utilize social workers for a range of tasks.

4. Teamwork with professionals from other disciplines is not important in my ability to help clients.

5. My colleagues from other professional disciplines and I rarely communicate.

6. The colleagues from other disciplines with whom I work have a good understanding of the distinction between my role and their role(s).

* 7. I communicate in writing with my colleagues from other disciplines to verify information shared verbally.

8. My colleagues from other disciplines make inappropriate referrals to me.

9. I can define those areas that are distinct in my professional role from that of professionals from other disciplines with whom I work.

10. I view part of my professional role as supporting the role of others with whom I work.

11. My colleagues from other disciplines refer to me often.

12. Cooperative work with colleagues from other disciplines is not a part of my job description.

* 13. I utilize informal methods of communication (i.e. social networks, lunchtime, etc.) to communicate with my colleagues from other disciplines.

14. My colleagues from other professional disciplines do not treat me as an equal.

15. My colleagues from other disciplines believe that they could not do their jobs as well without the assistance of social workers.

* 16. Incorporating views of treatment held by my colleagues from other disciplines improves my ability to meet clients' needs.

17. Distinct new programs emerge from the collective work of colleagues from different disciplines.

18. Organizational protocols reflect the existence of cooperation between professionals from different disciplines.

19. Formal procedures/mechanisms exist for facilitating dialogue between professionals from different disciplines (i.e., at staffings, in-services, rounds, etc.).

20. I am not aware of situations in my agency in which a coalition, task force or committee has developed out of interdisciplinary efforts.

* 21 . Some meetings, committees etc. in my agency/organization are consistently run jointly by social workers and other professionals.

22. Working with colleagues from other disciplines leads to outcomes that we could not achieve alone.

23. Creative outcomes emerge from my work with colleagues from other professions that I could not have predicted.

24. I am willing to take on tasks outside of my job description when that seems important.

25. I am not willing to sacrifice a degree of autonomy to support cooperative problem-solving.

26. I utilize formal and informal procedures for problem-solving with my colleagues from other disciplines.

27. The professional colleagues from other disciplines with whom I work stick rigidly to their job descriptions.

28. My non-social work professional colleagues and I work together in many different ways.

* 29. Relationships with my colleagues sustain themselves despite external changes in the organization or outside environment.

* 30. Decisions about approaches to treatment are made unilaterally by professionals from other disciplines.

31. Professionals from other disciplines with whom I work encourage family members' participation in the treatment process.

32. My colleagues from other disciplines are not committed to working together.

33. My colleagues from other disciplines work through conflicts with me in efforts to resolve them.

34. When colleagues from different disciplines make decisions together they go through a process of examining alternatives.

35. My interactions with colleagues from other disciplines occurs in a climate where there is freedom to be different and to disagree.

36. Clients/patients/students participate in interdisciplinary planning that concerns them.

37. Colleagues from all professional disciplines take responsibility for developing treatment plans.

38. Colleagues from all professional disciplines do not participate in implementing treatment plans.

39. Professionals from different disciplines are straightforward when sharing information with clients/patients/students.

40. My colleagues from other disciplines and I often discuss different strategies to improve our working relationships.

41 . My colleagues from other professions and I talk about ways to involve other professionals in our work together.

* 42. I work to create a positive climate in our organization.

43. My non-social work colleagues do not attempt to create a positive climate in our organization.

44. I am optimistic about the ability of my colleagues from other disciplines to work with me to resolve problems.

45. I help my non-social work colleagues to address conflicts with other professionals directly.

45. I help my non-social work colleagues to address conflicts with other professionals directly.

46. My non-social work colleagues are as likely as I am to address obstacles to our successful collaboration.

47. My colleagues from other disciplines and I talk together about our professional similarities and differences including role, competencies and stereotypes.

48. My colleagues from other professions and I do not evaluate our work together.

49. I discuss with professionals from other disciplines the degree to which each of us should be involved in a particular case.

Appendix D: Permission for IIC

Measurement Instrument Terms of Use

Index for Interdisciplinary Collaboration (IIC)

Permission Statement from Laura Bronstein

(via email communication, August 23, 2013)

These instructions are provided by the National Center for Interprofessional Practice and Education as part of a curated collection of instruments used for interprofessional education and collaborative practice (IPECP) research. More information is available at nexusipe.org/measurement-instruments.

"There is no license or fee, although I do always appreciate hearing when people are using it and their experience with it. I am also happy to be available for questions for you or others implementing the Index."

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