AN EXAMINATION OF FACTORS THAT RELATE TO SCHOOL COUNSELORS' KNOWLEDGE AND SKILLS OF MULTI-TIERED SYSTEMS OF SUPPORT

by

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ABSTRACT

JACOB ANDREW OLSEN. An examination of factors that relate to school counselors' knowledge and skills of multi-tiered systems of support. (Under the direction of DR. SEJAL PARIKH FOXX).

Structural equation modeling (SEM) to examine the factors that relate to school counselors' knowledge and skills of multi-tiered systems of support (MTSS). A sample of 4,066 practicing school counselors who are members of the American School Counselor Association (ASCA) participated in an online survey and were included in the final analysis. Results of the structural model indicated that time spent on ASCA aligned activities was directly related to school counselors knowledge and skills of MTSS. In addition, time spent on ASCA aligned activities mediated the relationship between school setting, school level, MTSS training, challenges to obtaining knowledge and skills of MTSS, and knowledge and skills of MTSS. Rural school setting, secondary school level, MTSS training, and challenges related to training, administrative support, time, and staff buy-in were directly related to time spent on ASCA aligned activities and indirectly related to school counselors knowledge and skills of MTSS. Implications for school counselor training programs, counselor educators, school counselor leaders and practicing school counselors are also provided.

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CHAPTER I: INTRODUCTION

In today's schools, K-12 students have increasingly diverse academic and behavioral needs, and educators are called upon to implement effective, efficient, and evidence-based practices to meet these needs (Lopez & Bursztyn, 2013; Vincent, Randall, Cartlege, Tobin, & Swain-Bradway, 2011). For some students, these efforts contribute to academic success; however, many students needs continue to be unmet. This achievement gap is most evident when student characteristics such as race, socioeconomic status, and ability are considered (Benner, Kutash, Nelson, & Fisher, 2013; Mitcham, Greenidge, Bradham-Cousar, Figliozzi, & Thompson, 2012; National Center for Education Statistics, 2014).

Despite a narrowing gap in the last two decades, White students continue to graduate from high school at higher rates than Black and Hispanic students (Kena et al., 2015). An achievement gap exists along socioeconomic lines as well. In 2013, students categorized as economically disadvantaged had a graduation rate of 73% compared 81% for all students (National Center for Education Statistics, 2015). Further, longitudinal data shows that this gap affects students' access to post-secondary opportunities and higher education achievement. A higher percentage of White students who complete high school enroll immediately in two or four-year colleges compared to Black students (Kena et al., 2015). Similarly, a higher percentage of students from high and middle-income families who graduate from high school immediately enroll in college compared

to students from low-income families (Kena et al., 2015). Once in college, Asian students complete the highest percentage of bachelor's degrees (55%), followed by White students (37%), Black students (17%), and Hispanic students (13%) (Kena et al., 2015).

Disparities also exist for how student behaviors are managed in schools. Black students are suspended and expelled three times as much as White students (U.S. Department of Education, 2014); and students with disabilities are more than twice as likely to receive an out of school suspension as student without disabilities (U.S. Department of Education, 2014). Similar trends can be seen when examining office discipline referrals (ODRs). A national sample of discipline data showed that Black students in elementary grades were twice as likely to be referred to the office as White students and almost four times as likely in middle school grades (Skiba et al., 2011). The same sample showed that Latino students in middle school grades received a disproportionate amount of ODRs compared to White students (Skiba et al., 2011). The data clearly indicate a need for strategies designed to support all students and close achievement and discipline gaps.

Comprehensive School Counseling

Given the academic and behavior needs of students, evidence-based practices are needed to support all students from the time they enter elementary school until the time students graduate from high school and begin their post-secondary college or career path (Johnson, Rochkind, Ott, & DuPont, 2009). To answer this call, the American School Counselor Association National Model (ASCA, 2012a) for school counseling programs has evidence-based and culturally responsive practices built into the model to support all students (Whiston & Quinby, 2009; Whiston, Tai, Rahardja, & Eder, 2011). Furthermore,

research indicates that students in schools where the ASCA National Model is implemented benefit academically and behaviorally (Dimmitt & Wilkerson, 2012; Lapan, Gysbers, & Petroski, 2001; Wilkerson, Perusse, & Hughes, 2013). School counselors have the unique training to implement a comprehensive school counseling program (CSCP) using the ASCA National Model (ASCA, 2014d); and the skills in leadership, advocacy, collaboration, using data, and counseling to address barriers and increase students' opportunities for success (House & Hays, 2002; Johnson, Rochkind, & Ott, 2010).

It is clear that school counseling program implementation is needed to comprehensively address the needs of all students, and the extent to which counselors spend their time on counseling activities aligned with core components of the ASCA National Model (2012) has been documented in the school counseling literature (Burnham & Jackson, 2000; Scarborough & Culbreth, 2008). However, there is a call for school counselors to align their work with stakeholders and practices focused on creating a safe and productive school climate, and address the needs of all students, particularly students of underserved and underperforming populations (ASCA, 2015; Gysbers, 2004; Janson, Stone, & Clark, 2009; Martin, 2002; Paisley, 2001). To expand the reach and impact of school counseling programs, school counselors can align their programs with Multi-Tiered Systems of Support (MTSS).

Multi-Tiered Systems of Support (MTSS)

The MTSS framework is an effective and efficient approach to improving students' academic and behavioral experience in schools (Sugai, Simonsen, Bradshaw, Horner, & Lewis, 2014). Two of the most widely used and familiar versions of MTSS in

schools are Response to Intervention (RtI) and Positive Behavioral Interventions and Supports (PBIS). Although different versions may have different emphases (e.g., academic or behavioral), all MTSS frameworks have similar core features.

MTSS frameworks typically include three progressive tiers with increasing intensity of supports based on student responses to core instruction and interventions (Prasse et al., 2012). Within a multi-tiered framework, students are screened for behavior and academic challenges, progress is monitored and data-based decisions are made (Chard et al., 2008). School-wide systems (i.e., tier one), including high quality research based instruction, are put in place to support all students academically, socially, and behaviorally; targeted interventions (i.e., tier two) are put in place for students not responding to school-wide supports; and intensive team based systems (i.e., tier three) are put in place for student needing function based intensive interventions beyond what is received at tier two (Sugai et al., 2000). In schools implementing MTSS effectively, all school staff are directly or indirectly involved in the implementation process. However, an MTSS facilitator or coach often takes a leadership role in the school by coordinating school teams and ensuring fidelity of implementation (Sugai & Horner, 2006). Core features also include school-wide expectations and procedures, social skill instruction and reinforcement, and a team-based problem solving process (e.g., Team Initiated Problem Solving (TIPS) Team) to analyze student data, develop goals, and progress monitor intervention implementation (Horner, Sugai, & Anderson, 2010).

MTSS implementation increases students' access to academic and behavioral supports and has beneficial effects on students' academic achievement and social skill acquisition (Curtis, Van Horne, Robertson, & Karvonen, 2010; Newton, B. Algozzine,

Algozzine, Horner, & Todd, 2011; Simonsen, Jeffrey-Pearsal, Sugai, & McCurdy, 2011). Research comparing schools that implement MTSS to non-implementing schools shows that schools implementing MTSS had higher scores on academic accountability measures (Marin & Filce, 2013; McIntosh, Sadler, & Brown, 2012); significantly reduced ODRs and suspension rates (Benner, Nelson, Sanders, & Ralston, 2012); and improved perceptions of school safety among school staff and students (Horner, 2009). MTSS implementation has also improved outcomes for students who may otherwise go underserved. For example, in schools implementing MTSS, students labeled at-risk needed fewer counseling and special educational services (Bradshaw, Waasdorp, & Leaf, 2015). The multiple benefits of MTSS implementation have been demonstrated at the elementary, middle, and high school level, and in rural, suburban, and urban school settings (Farkas et al., 2012; McCrary, Lechtenberger, & Wang, 2012).

To date, there is a lack of research that addresses school counselors' involvement in MTSS. Given that MTSS is implemented in over 21,000 schools nation-wide (Horner, 2015) and school counselors are specifically called to align their programs with MTSS (ASCA, 2014c), research is needed to understand school counselors' level of knowledge and skills of MTSS.

Therefore, this study examined the factors that relate to school counselors' knowledge and skills of Multi-Tiered Systems of support (MTSS). To carry out this objective, the following independent variables were included: (1) time spent on American School Counselor Association (ASCA) aligned activities, (2) challenges to obtaining knowledge and skills of MTSS, (3) school level, (4) school setting, and (5) type of MTSS

training. The dependent variable examined was school counselors' knowledge and skills of MTSS.

Predictor Variables

School Counselor Time Spent on ASCA Aligned Activities

The American School Counselors Association (ASCA) provides school counselors with recommendation about how to spend their time. Part of this recommendation includes the recommendation to align school counseling program with Multi-Tiered Systems of Support (MTSS). However, there is often a discrepancy (Burnham & Jackson, 2000; Cervoni & DeLucia-Waack, 2011; Cinotti, 2014; Hutchinson, Barrick, & Groves, 1986; Scarborough, 2005; Scarborough & Culbreth, 2008) in how school counselors actually spend their time performing ASCA aligned activities (Atici, 2014; Bardhoshi, Schweinle, & Duncan, 2014; Bonebrake & Borgers, 1984; Carroll, 1993; Clemens, Milsom & Cashwell, 2009; Eckenrod-Green & Culbreth, 2008; Herrington & Ross, 2006) and the ideal time spent performing ASCA aligned activities (Brott & Meyers, 1999; Education Trust, 2009; Hardesty & Dillard, 1994; Kirchner & Setchfield, 2005; Walsh, Barrett, & DePaul, 2007).

Challenges to Obtaining Knowledge and Skills of MTSS

There is a robust body of literature that explores the challenges to obtaining knowledge and skills of MTSS (Bambara et al., 2012; Dulaney et al., 2013; Harlacher & Siler, 2011; Lohrmann, Martin, & Patil, 2013; Marrs & Little, 2014). In addition, the challenges school counselors face in implementing CSCPs have also been explored (Chitiyo & Wheeler, 2009; Lapan et al., 2012; Moyer, 2011; Pyne, 2011; Studer, Diambra, Breckner, & Heidel, 2011). There is far less literature that specifically explores

the challenges school counselors face with regards to obtaining and using the knowledge and skills necessary to implement MTSS. However, the challenges school counselors are likely to face in obtaining knowledge and skills of MTSS can be drawn from the wider literature exploring the challenges to MTSS and CSCP implementation. These challenges include lack of administrative support, insufficient time (e.g., non-school counseling activity assignment, high student case load), and resistance of school staff.

School Level

School counselors' allocate their time to implement core components of the ASCA National Model (2012) based on profession adopted guidelines that take student developmental needs into consideration (Gysbers & Henderson, 2012). Because the developmental needs of students vary by grade level, the implementation of program components at the elementary, middle, and high school levels are tailored to fit the student population (Dahir & Stone, 2012). Research shows that elementary school counselors are most likely to implement CSCPs consistent with best practices when compared to middle and high school counselors (Scarborough & Culbreth, 2008). Middle school counselors focus on addressing the increasingly intense social and emotional needs of middle school students while providing assistance with increased academic demands, scheduling, and transitions to high school (Wright, 2012). Finally, to address the academic, social, and postsecondary needs of high school students, school counselors spend more time with individual student planning tasks and place greater importance on career and postsecondary development than elementary and middle school counselors (Dahir et al., 2009; Studer et al., 2011).

School Setting

School counselors implement CSCPs in rural, suburban, and urban school settings. These settings impact the way in which school counselors' work because of the unique needs of students, parents, and the larger community. School counselors in rural school settings face unique challenges such as fewer resources, fewer opportunities for collaboration, and increased geographic isolation compared to schools in suburban and urban settings (Griffin & Galassi, 2010; Grimes, Haskins, & Paisley, 2013). Less research specifically addresses the impact of suburban settings on school counseling outcomes. This is perhaps because of what Watson (2012) describes as norming suburban, a term used to describe how teachers use middle class White students as a normative reference. Despite a lack of research, factors such as increased academic pressures, parent involvement, and college readiness impact how school counselors implement CSCPs and integrate their work with other student supports such as MTSS (Gillilan, 2006; Lynn, Shamsuddin, Totten, Bridges, & Jennings, 2010; Shamsuddin, 2016). Finally, students in urban school settings experience environmental stressors such as exposure to violence, poverty, and crime and research shows these stressors are linked to mental health issues and academic struggles (Miller & Townsend, 2005; Yeh, Borrero, & Shea, 2011). These stressors directly affects the work of urban school counselors, often making CSCPS implementation more challenging than in rural and suburban settings (Holcomb-McCoy & Mitchell, 2005; Lee, 2005; Miller, Webster, & MacIntosh, 2002).

Type of MTSS Training

Researchers describing school counselors' involvement in MTSS implementation clearly expresses a need for school counselors to engage in training to develop knowledge and skills of MTSS (Cressey et al, 2014; Curtis et al., 2010; Goodman-Scott, 2014; Goodman-Scott, Betters-Boubon, & Donohue, 2015; Martens & Andreen, 2013; Ockerman et al., 2012; Sherrod et al., 2009). Further, multiple studies show that a combination of whole staff, MTSS team, role specific, and the types trainings that include practical application and ongoing follow up support are most effective (Lohrmann et al., 2013). When school counselors receive comprehensive MTSS training, school counselors' knowledge and skills of MTSS improves and increases school counselors' capacity to meet the needs of all students (Betters-Bubon & Donoue, 2016; Cavanaugh & Swan, 2015; Goodman-Scott et al., 2015).

Purpose of the Study

The purpose of this study was to examine how time spent on ASCA aligned activities, challenges to obtaining knowledge and skills of MTSS, school level, school setting, and type of MTSS training relate to school counselors' knowledge and skills of Multi-Tiered Systems of Support (MTSS).

Research Question

The main research question for this study is: What factors relate to school counselors' knowledge and skills of Multi-Tiered Systems of Support (MTSS)?

Sub-Research Questions

Question 1: To what extent do school counselors spend their time on activities aligned with the ASCA National Model for comprehensive school counseling programs (CSCP)?

Question 2: What is the level of school counselors' knowledge and skills of MTSS?

Question 3: How are time spent on ASCA aligned activities, challenges, school level, school setting, and type of MTSS training related to level of MTSS knowledge and skills?

Significance of the Study

Outcome research shows that when school counselors implement programs aligned with the ASCA National Model, students have: better attendance, fewer suspensions, better relationships with peers and staff, and a stronger sense of belonging (Dimmitt & Wilkerson, 2012). In addition, students report feeling safer at school, being satisfied with the quality of their education, and earning higher grades (Lapan, Gysbers, & Petroski, 2001). In schools with comprehensive programs in place, students also academically outperform their peers in schools without comprehensive programs (Sink & Stroh, 2003). Similarly, research shows students benefit from MTSS implementation (Bradshaw, Mitchell, & Leaf, 2010). This study is important because having the background knowledge of MTSS and the skills to implement such frameworks can enhance school counselors' ability to meet the needs of all students and further integrates the school counseling program into the schools existing framework for academic and behavioral support.

Furthermore, according to ASCA, "professional school counselors are stakeholders in the development and implementation of Multi-Tiered Systems of Support (MTSS)…" and "align their work with MTSS through the implementation of a comprehensive school counseling program…" (ASCA, 2014c, p. 38). In order for school counselors to be involved in the development, implementation and alignment of MTSS,

school counselors need knowledge and skills of MTSS. However, research focused on examining school counselor's level of knowledge and skills related to MTSS and is lacking. As a profession, we need to better understand the extent of and factors influencing school counselors' level of knowledge and skills of MTSS.

Research Design

A descriptive non-experimental research design using survey research methods was used to examine how (1) time spent on American School Counselor Association (ASCA) National Model aligned activities, (2) challenges to obtaining knowledge and skills of Multi-Tiered Systems of Support (MTSS) effectively, (3) school level, (4) school setting, and (5) type of MTSS training relate to school counselors' knowledge and skills of MTSS. Survey research was used to determine and report the way things are, and assesses perceptions, attitudes, and practices of a group of people (Gay, Mills, & Airasian, 2011).

Assumptions

The following assumptions were made concerning the implementation of this research:

1. It is assumed that all participants responded honestly to the self-report instruments.
2. The surveys being used were valid and measured the variables accurately.
3. Participants accurately comprehended and responded to the survey items.

Delimitations

The following delimitations associated with this study were:

1. The study included school counselors working in elementary, middle, and high schools in rural, suburban, and rural settings in (number and location of states to be determined).
2. The data used to address the research questions in this study were self reported by school counselors.
3. Participants were selected from the American School Counselor Association (ASCA) membership directory.

Limitations

The following factors were limitations of this study:

1. Social desirability may limit the results of this study. Participants may have attempted to answer in a way that they perceived the researcher would view as favorable or in a way that portrays them as knowledgeable and skillful.
2. Only school counselor ASCA members with an email listed in the membership directory were invited to participate in this study.
3. School counselors who chose to respond to the survey may have more knowledge and skills of MTSS than school counselors who did not participate in the study.

Threats to Validity

Threats to external and internal validity must be considered when interpreting the results of this study. Steps were taken to reduce external and internal validity to the extent possible. These steps are summarized in the following section.

Threats to External Validity

External validity is associated to the extent to which the current study can be generalized (Johnson & Christensen, 2004). Possible threats to external validity in this

study are that generalizability is limited to the population of school counselors who were invited to participate in the study and who responded to survey items and that participants in states who implement MTSS may respond differently to survey items than participants in states who do not implement MTSS.

Threats to Internal Validity

Internal validity is associated to internal causes, which could affect the relationship among the variables being examined (Johnson & Christensen, 2004). Possible threats to internal validity of this study include the accuracy and honesty of school counselors self-reporting and the validity and reliability of the measures used to collect data.

Operational Definitions

The following terms are the operational definitions in this study.

Time spent on American School Counselor Association (ASCA) aligned activities.

Participants self-reported the frequency with which they spend their time actually performing school counseling activities using the School Counseling Program Implementation Survey (SCPIS) (Clemens, Carey, & Harrington, 2010a)

Challenges to obtaining knowledge and skills of MTSS

Challenges to obtaining knowledge and skills of MTSS are defined as factors that imped the adoption, implementation, and sustained practice of the core features of MTSS (e.g., a continuum of evidence-based interventions, leadership, continuous use of data and assessment, advocacy for equity) (Bambara et al., 2012; Freeman et al., 2015). The most common challenges to obtaining knowledge and skills of MTSS include: lack of training, lack of administrative support, insufficient time (e.g., non-school counseling activity

assignment, high student case load), and resistance of school staff. Challenges to obtaining knowledge and skills of MTSS were measured with one question in the demographic questionnaire asking participants to rate the listed challenges to obtaining knowledge and skills of MTSS. The listed challenges are based on a review of the literature, and include: *need more training, need more administrative support, need more time, need more staff buy-in,* and *no challenges*. Participants responded to each listed challenge using scale options that include: *none, some,* and *a lot.*

School Level

School level refers to the grade levels of the students within the school where the school counselor is currently working. In this study, participants self-reported to indicate their school level as follows: elementary school, middle school, high school, K-8, K-12. For the purposes of data analysis, elementary school is referred to as primary, middle and high school are referred to as secondary, and K-8 and K-12 are referred to as other.

School Setting

School setting refers to the self-reported geographical location of the school where the school counselor is currently working (i.e., rural, suburban, urban).

Type of MTSS training

School staff obtain the knowledge and skills needed to implement MTSS through training (Freeman, Miller, & Newcomer, 2015). Type of MTSS training was measured with one question in the demographic questionnaire asking participants to indicate the extent of their MTSS training. The benchmarks for training are based on a review of the literature, and include: *Have not received any training on MTSS* (No Training)*; Initial training, introductory content knowledge, single training or presentation, have heard or*

know about MTSS (Low); *In-depth training, applied content knowledge, multiple trainings or presentations, have been trained and have started implementing or been implementing less than six months* (Medium); *Comprehensive training and on-site coaching, mastery content knowledge, training or presentation provider, have been fully trained and coached and have been implementing for six months or longer and/or coaching and training others* (High). Participants responded to the type of training question using scale options that include: *No training, low, medium,* and *high.*

Dependent variable:

School counselors' knowledge and skills of MTSS were assessed by using the self-reported School Counselor Knowledge and Skills Survey (SCKSS) (Olsen, Blum, & Cheney, 2016). School counselors were assessed on their overall knowledge and skills of MTSS which is comprised of specialized behavior support and practices, targeted intervention supports and practices, school-wide MTSS practices, individualized curriculum supports and practices, and positive classroom supports and practices.

Summary

This chapter identified the big picture statement of the problem, the independent and dependent variables involved in the study, the significance and need for this study, and the gap in the literature and research on school counselors' knowledge and skills of MTSS. This chapter also provided the purpose of this study, the operational definitions, assumptions, delimitations, limitations, and threats to external and internal validity.

Organization of the Study

This research study is divided into three chapters. Chapter one provides an overview of the research variables, purpose of the study, research questions, significance

of the study, research design, assumptions, delimitations, limitations, threats to validity, and operational definitions. Chapter two reviews the literature on each variable included in this study. In addition, past and current research is analyzed and the relationship between the variable and MTSS is explored. Chapter three details the methodology of the study. A description of participants, procedure, and the instruments used to gather data are included. In addition, the research design, research questions, and the approach to data analysis are outlined. Chapter four describes the results of the study. The participants in the sample, reliability of instruments, data screening procedures, descriptive statistics, and results of the structural equation modeling analysis are included. Finally, chapter five discussed the results of the study. The discussion includes an overview, discussion of the results by study variable, contributions and limitations of the study, implications of the finding, recommendations for future research, and concluding remarks.

CHAPTER II: REVIEW OF THE LITERATURE

The purpose of this study was to examine how time spent on ASCA aligned activities, challenges to knowledge and skills of MTSS, school level, school setting, and type of MTSS training relate to school counselors' knowledge and skills of Multi-Tiered Systems of Support (MTSS). The salient topics of school counseling (Gysbers, 2001; Martin, 2002; Whiston, Tai, Rahardja, & Eder, 2011) and MTSS (Sailor, 2015; Sugai & Horner, 2009; Sugai et al., 2014) have been widely discussed independently in the literature; however, the integration of these two fields has been discussed much less. In order to address the gap in literature, it is necessary to illustrate key features of CSCPs and MTSS and explore how school counselors' role within each system can benefit school counselors and the students they support.

The School Counseling Profession

The role of the school counselor has transformed into a dynamic leadership role (Janson et al., 2009; Wingfield, Reese, & West-Olatunji, 2010). School counselors are called to implement a comprehensive school counseling program (CSCP) in order to meet the diverse academic, social, personal and career needs of all students (ASCA, 2012a). To better understand the role of the school counselor and how the role of the school counselor has evolved to include involvement in MTSS, the following section describes the history of the school counseling profession, current roles, and related research.

History of the Profession

The field of school counseling started out as vocational guidance in the early 1900's (Dollarhide & Saginak, 2012). Jesse Davis, a high school principal, is considered one of the first educators to systematically address students' character, behavior and career interests by introducing a teacher led classroom lesson program on these topics into the daily school curriculum (Dollarhide & Saginak, 2012). Shortly after Davis implemented his classroom lesson program, Frank Parsons (1909) outlined an approach to guide high school students, college graduates, young adults, and older adults toward a vocation that fit the individuals' characteristics and experience. This framework lead to the establishment of the Vocation Bureau of Boston in 1908, a vocation department of the Young Men's Christian Association (YMCA) of Boston, and a school to train vocational counselors to carry out the work of the Vocation Bureau and the YMCA of Boston in partnership with local schools, universities, businesses and the community (Parsons, 1909). Early training for vocational counselors was anywhere from one to three terms and included lectures, research, conferences, use of results reports, tests, and practice working with those seeking vocational guidance.

In the 1930's and into the 1940's, the mental health movement influenced a more clinical model of vocational guidance (Gysbers, 2001). As Carl Rogers introduced the Person Centered approach to counseling, and as the use of psychometrics gained popularity, vocational counselors training and practices focused more on integrating individual counseling into their work with students (Gysbers & Henderson, 2012). The 1950's marked a transitional period in the field of school counseling. The National Defense Education Act of 1958 stated that the purpose of guidance was to identify and

support college bound students (Gysbers, 2001). As a result, funds were allocated to train and prepare school counselors to carry out the Act's guidance goals.

As the 1950's turned into the 1960's, guidance services began to be conceptualized as part of a comprehensive, developmental program rather than a set of services provided by an individual in a position. This reconceptualization of guidance came from a fresh emphasis on career development, developmental guidance, and a need for accountability and evaluation (Gysbers, 1997). During the 1960's, guidance became part of pupil personnel services, which also included psychological services, school social work, health, and attendance (Gysbers, 2001).

A result of guidance services being part of a comprehensive program was an increase in national and state level organization. In 1971, the University of Missouri received a U.S. Department of Education grant to develop and implement state level models in schools across the nation. This work resulted in the creation of models for career guidance and counseling in 44 states and a national conference to support model development (Gysbers, 1997).

By the 1990's, the career component of guidance programs was fully integrated with counseling and personal/social supports for students (Gysbers, 1997). As a significant and symbolic result, programs were now referred to as comprehensive guidance programs rather than career guidance programs. One of the most significant advances in the school counseling profession was the development of the National Standards for School Counseling Programs (Campbell & Dahir, 1997). The National Standards consisted of nine standards based on three domains of student development: academic, career, and personal/social (Dahir, 2000). The National Standards provide a

framework for program implementation and define the knowledge and skills students should have as a result of participating in the schools counseling program (Dahir, 2000). Perhaps most significantly, the National Standards systematically integrates school counseling programs and school counselors into the schools mission and practices, and seeks to ensure equitable access and success for all students (Dahir, 2000).

A review of the history of school counseling gives context to the evolution of the profession. The advancement of school counseling continues today as school counselors implement CSCPs aligned with the ASCA National Model. As in the past, the profession of school counseling will continue to grow to meet the needs of all students. This growth includes the need for a deeper understanding of school counselors' involvement in MTSS, and how CSCP and MTSS integration will meet the needs of all students in the future.

Current Role of the Professional School Counselor

Professional school counseling, as we know it today, was shaped by a transition from a position focused on individual counseling to an emphasis on the implementation of a comprehensive program to meet the needs of all students (Gysbers, 1997). This transition is timely considering that 21st Century educators, including school counselors, are tasked with ensuring students receive a quality education that prepares them for college and career while addressing the academic, social, emotional, and behavioral challenges many students face (Gysbers & Henderson, 2001).

As the demands of school counselors increase with the growing complexity of student needs, the profession as a whole has continued to progress. In 2003, the Education Trust established the National Center for Transforming School Counseling

(NCTSC) to highlight the importance of school counseling in a time of increased educator accountability and high academic standards for students (Education Trust, 2009). The focus of the NCTSC is to put school counselors at the forefront of a movement that emphasizes advocating for all students to receive equitable access to quality education.

While the NCTSC was being formed, the American School Counselor Association (ASCA) developed the first edition of the National Model (2003), a framework to support school counselors in organizing, implementing and assessing strong school counseling programs. Key components of the ASCA National Model include: definition of school counselor roles, guidelines for delivering preventative and responsive services, and accountability tools to assess needs and measure results using data (ASCA, 2012a). School counselors deliver classroom lessons, facilitate small group counseling, counsel students individually, consult and collaborate with school staff, families and the community, and manage a program using data to drive focus and measure effectiveness (Scarborough & Culbreth, 2008; Walsh et al., 2007).

Following the establishment of the NCTSC, and the development of the first two editions of the ASCA National Model (2003, 2005), larger reforms took place that affected the broader field of education, including school counseling. The U.S. Department of Education put forth A Blueprint for Reform, a reauthorization of the Elementary and Secondary Education Act (U.S. Department of Education, 2010). The Blueprint for Reform focuses on the key priorities of: college and career ready students, quality teachers and leaders in every school, equity and opportunity for all students, raising the bar and rewarding excellence, and promoting innovation and continuous

improvement (U.S. Department of Education, 2010). State and local school leaders are charged to look for existing resources and practices within schools to meet the goals of the Blueprint for Reform. School counselors play an important role in meeting The Blueprint for Reforms goals by preparing students for college and career and using data to identify students in need of additional supports (Dahir & Stone, 2012).

Related Research

An emphasis on measuring the effectiveness of school counseling programs has been part of the profession for some time (Dahir & Stone, 2003; Education Trust, 2009; Herr & Cramer, 1972; Johnson & Johnson, 1982; Lapan, 2001; Rothney, 1958). In the literature, research on school counseling effectiveness typically focuses on student outcomes related to overall CSCP implementation (Carey & Harrington, 2010a) or outcomes related to the implementation of individual components of a CSCP (e.g., classroom lesson implementation, small group counseling intervention, etc.) (Brigman & Campbell, 2003). Although CSCPs and individual program components have been assessed, leaders in the field contend that measuring effectiveness remains complex and challenging because school counseling programs are often integrated with other programs, initiatives and interventions in the school that also contribute to positive student outcomes (Brown & Trusty, 2005a; Brown & Trusty, 2005b; Sink, 2005).

Despite challenges, state level research continues to take place in an attempt to demonstrate the relationship between CSCPs and student outcomes. In Missouri, students attending schools with more fully implemented CSCPs reported feeling safer at school and having better relationships with teachers (Lapan et al., 2001); and reported that their education was better preparing them for their future and their school provided

more career and college information (Lapan et al., 1997). Further, students attending high schools with more fully implemented school counseling programs were more likely to have higher 11th grade MAP Communication Arts test scores, more likely to graduate high school, and more likely to have better attendance and fewer discipline problems (Lapan et al., 2007). Minority students attending middle and high schools with more fully implemented CSCPs also had better academic, social, emotional, and career outcomes (Lapan et al., 2007).

Additional positive outcomes were shown in studies evaluating CSCPs in Nebraska and Utah. Researchers showed that overall, school counseling programs were related to increased math and reading proficiency, lower disciplinary rates, increased attendance rates, greater percentages of students taking the ACT, and higher average ACT scores (Carey & Harrington, nd; Carey & Harrington, 2010a; Carey & Harrington, 2010b). Results from Nebraska and Utah also indicate the longer a school implements the ASCA National Model, the better the educational outcomes for students (Carey & Harrington, nd).

More recently, research in Rhode Island showed that targeted school counseling supports were associated with significant and positive student outcomes (Dimmitt & Wilkerson, 2012). For example, in schools where school counselors provided more college and career supports and focused on improving students academic success, students had significantly better attendance, fewer suspensions, and fewer reports of being teased or bullied (Dimmitt & Wilkerson, 2012). When school counselors spent more time addressing students' social and personal needs, students were significantly

more likely to feel a sense of belonging at school and less likely to report difficulties with teachers (Dimmitt & Wilkerson, 2012).

Large scale, statewide research clearly shows that CSCPs contribute to improving a variety of aspects of students' school experience (Lapan, 2012; Wilkerson et al., 2013). However, continued research documenting the positive effects of school counseling programs is needed (Whiston, 2002). This need is increasingly met by research focused on outcomes related to the implementation of individual components of a CSCP such as the school counseling core curriculum, small group counseling, and individual student planning.

In the ASCA National Model (2012), the school counseling core curriculum is defined as "a planned, written instructional program that is comprehensive in scope, preventive in nature and developmental in design" (p. 85). The school counseling core curriculum addresses academic, personal/social, and career domains and is a way for school counselors to systematically reach a large number of students (ASCA, 2012a). When school counselors' design, implement and assess classroom lessons targeting specific student competencies, students benefit in a variety of ways (Akos, Cockman, & Strickland, 2007; Bates, 2006; Kozlowski, 2013).

Students receiving school counselor led classroom lessons focused on bullying prevention and intervention reported a reduction in their involvement in bullying and an increase in feeling listened to by school staff (McCormac, 2015). In the same school, staff measured a decrease in student bullying behavior, felt classroom lessons were useful, and reported feeling comfortable coaching students who demonstrated bullying behavior or reported bullying (McCormac, 2015). Similar positive effects were found

when school counselors use curriculum to address students' academic, personal, and social development. School counselors used the well-researched Second Step (Committee for Children, 2010) curriculum over a three-year period to increase the social and emotional competencies and academic achievement of students (Duarte & Hatch, 2015). Classroom lessons contributed to an overall improvement of English Language Arts and Math scores on a state standardized test; a reduction of discipline referrals; and a reduction of unexcused absences and students classified as truant (Duarte & Hatch, 2015). When comparing students who received the Skill-Builders curriculum to improve attitudes toward math learning, students who received the school counselor led curriculum were significantly different than students who did not receive the classroom lessons in their self confidence, value, enjoyment, and motivation related to math learning (Falco, Crethar, & Bauman, 2008).

School counselors also plan, implement and evaluate small group counseling interventions to help students build skills and overcome barriers to school success (ASCA, 2012a; Gerrity & DeLucia-Waak, 2007; Sink, Edwards, & Eppler, 2012; Steen, Bauman, & Smith, 2007; Whiston et al., 2011). According to ASCA (2014a), group counseling "involves a number of students working on shared tasks and developing supportive relationships in a group setting, is an efficient, effective and positive way of providing direct series to students with academic, career and personal/social/emotional developmental issues and situational concerns" (p. 28). When targeted toward students who are considered at risk or underachieving, small group counseling helps student build crucial skills that contribute to academic success (Edmondson & White, 1998; Luck & Webb, 2009; Tobias & Myrick, 1999).

Students identified as underachieving in ninth and tenth grade participated in a weekly small group counseling intervention focused on self-efficacy, goal valuation (meaningfulness) and environmental perception (Berger, 2013). After eight group sessions, students showed significantly higher organization and time management skills and significantly decreased low motivation scores (Berger, 2013). Similar results were found for ninth grade students identified as performing in the bottom 50 percent of their class academically. Ninety students participated in a study skills group resulting in improved studying behaviors and the school counselor reported improved relationships with students, parents, and other stakeholders involved in the intervention (Kayler & Sherman, 2009). School counselors' implementing the Achieving Success Everyday (ASE) small group intervention have also reported positive academic and personal/social student outcomes for students (Steen & Kaffenberger, 2007; Steen, 2011; Steen, Henfield, & Booker, 2014). The ASE small group intervention focuses on enhancing students personal development, developing resiliency, and improving academic related behaviors (Rose & Steen, 2015; Steen, 2011). When used with 15 students across three elementary schools, students participating in the ASE small group had significantly higher GPAs in Language Arts than students in the control group with a large effect size (Steen, 2011).

School counselors have also used established curriculum to guide small group counseling intervention. For example, the Student Success Skills (SSS) (Brigman, Campbell, & Webb, 2010) small group curriculum focuses on supporting elementary and middle school students with academic and social skills. Students participating in school counselor led small group intervention using SSS report feeling more connected to school

(Lemberger & Clemens, 2012) and improved beliefs about learning competence and self-regulation behaviors (Ohrt, Webster, & De La Garza, 2014). Teachers notice the effects of the small group intervention as well, observing an increase in executive functioning for students participating in the groups (Lemberger & Clemens, 2012).

It is clear there is a growing body of research showing the effectiveness of school counselors implementing classroom lessons and small group interventions to support students academically, personal, socially, and in career development. Although far less research exists, a recent study using a national data sample illustrates the impact of school counselors on individual student outcomes (Belasco, 2013). This study showed that students who met individually with their school counselor for college-related information were more likely to enroll in postsecondary education, particularly at four-year colleges (Belasco, 2013). Perhaps most importantly, students from low socioeconomic backgrounds who met with their school counselors in 10th and 12th were more likely to enroll in four-year colleges than students who met with their school counselor in one grade only (Belasco, 2013).

Summary

Prior research makes clear that when school counselors' use specialized knowledge and skills to implement CSCPs aligned with the ASCA National Model (2012a) students benefit academically, personally, and socially (Lapan, 2012; Wilkerson et al., 2013). Despite the documentation of beneficial student outcomes, school counselors are continually faced with meeting the needs of all students in increasingly challenging, complex, and diverse schools (Lee & Wagner, 2007). To meet this challenge, school counselors are called on to expand the impact of CSCPs by aligning

and integrating core CSCP components with existing school frameworks (e.g., MTSS such as PBIS and RTI) that are also designed to support the academic, social, and behavioral success of all students (ASCA, 2014c; Betters-Bubon & Donohue, 2016). However, little is known about how school counselors integrate CSCPs with MTSS and the extent to which school counselors have the knowledge and skills to implement MTSS is not yet known. Therefore, this study is needed to establish an understanding of school counselors' knowledge and skills of MTSS and the factors that influence knowledge and skill development. Once established, researchers, counselor educators, and school district personnel can better identify what school counselors need to be able to integrate CSCPs and MTSS to meet the needs of all students.

Multi-Tiered Systems of Support

The Multi-Tiered Systems of Support (MTSS) framework is an effective and efficient approach to improving students' academic and behavioral experience in schools (Sugai, Simonsen, Bradshaw, Horner, & Lewis, 2014). A MTSS framework is defined as a "coherent continuum of evidence-based, system-wide practices to support a rapid response to academic and behavioral needs" (Kansas State Department of Education, 2013, p. 3). Two of the most widely used and familiar versions of MTSS in schools are Response to Intervention (RtI) and Positive Behavioral Interventions and Supports (PBIS).

The Development of RtI and PBIS

The National Association of State Directors of Special Education (2006) has defined Response to Intervention (RtI) is as:

> Practices that provide students with high-quality instruction and interventions based on students' academic or behavioral needs. Student progress is systematically and frequently monitored to make instructional decision and develop goals. Student data are evaluated to make important educational decisions. (p. 46)

Various RtI frameworks are implemented across the nation (Berkeley, Bender, Peaster, & Saunders, 2009; Spectrum K12, 2010). At the state level, 47 out of 50 states show evidence of implementing RtI at a small or large scale or are providing guidance to districts and schools for implementation (Berkeley, Bender, Peaster, & Saunders, 2009). Further, over 61% of district level administrators reported they are fully implementing or in the process of implementing RtI district wide (Spectrum K12, 2010).

RtI is typically characterized by a three-tiered system of support. Tier one, also known as universal supports, consists of interventions for all students including implementation of the core general education curriculum (Gerzel-Short & Wilkins, 2009). In schools implementing RtI effectively, tier one interventions meet the needs of at least 80% of students (Gerzel-Short & Wilkins, 2009). Students not responding to tier one supports receive more intensive interventions referred to as tier two or targeted interventions (Gerzel-Short & Wilkins, 2009). In schools implementing RtI effectively, approximately 15% of students may need tier two level interventions. Finally, tier three interventions are individualized for students not responding to tier one universal interventions or tier two targeted interventions (Gerzel-Short & Wilkins, 2009). Approximately 5% students may need this level of support in schools with strong RtI frameworks in place (Gerzel-Short & Wilkins, 2009). The multi-tiers of support that

make up RtI are operationalized by core components that include universal screening, progress monitoring, and team-based decision making (Hughes & Dexter, 2011).

The PBIS framework is another widely used version of MTSS. PBIS is defined as:

> An implementation framework that is designed to enhance academic and social behavior outcomes for all students by (a) emphasizing the use of data for informing decisions about the selection, implementation, and progress monitoring of evidence-based behavioral practices; and (b) organizing resources and systems to improve durable implementation fidelity. (Sugai & Simonsen, 2012, p. 1)

PBIS is implemented in over 20, 300 schools nationwide and in at least 12 countries (Horner, 2015). Put another way, 20% of all schools in the United States implement PBIS, 14 states have more than 500 schools implementing and 13 states have at least 40% of all schools implementing (Horner, 2015).

Similar to the RtI framework, PBIS is characterized by a three–tiered system of support. Tier one interventions are implemented for all students and in all school settings (common areas, classrooms, etc.). Schools that implement PBIS at the tier one level develop and implement a school-wide PBIS plan with the goal of creating a safe and predictable environment for teaching and learning to occur (Wheeler & Mayton, 2010). The PBIS plan includes (1) school staff agreeing on 3-5 positively stated expectations, (2) teaching the expectations to all students, (3) providing reinforcement for students following expectations, (4) enforcing consequences for rule violation, and (5) using data regularly to determine the effectiveness of the school-wide PBIS plan (Horner & Sugai, 2015). Tier two level interventions are developed and implemented for students who do

not respond to tier one supports and who need more frequent and targeted interventions (Crone, Hawken, & Horner, 2010). In schools that implement PBIS comprehensively, approximately 15% of students may need tier two level intervention to have their needs met (Crone, Hawken, & Horner, 2010). Tier two level interventions are targeted to the needs of the students, efficiently implemented, and often involves behavior intervention in small groups (Horner & Sugai, 2015). Tier three level interventions are designed for students who do not respond to tier one and tier two level supports. In schools implementing PBIS comprehensively, approximately 5% or less of students may need tier three level intervention (Sayeski & Brown, 2011). Tier three level interventions involve Functional Behavior Assessment to provide educators with data to designed intensive and individualized intervention (Sayeski & Brown, 2011). Student progress is then frequently monitored using data, intervention effectiveness is determined, and adjustments to interventions are made (Sayeski & Brown, 2011).

Core Features of MTSS

MTSS frameworks typically include three progressive tiers with increasing intensity of supports based on student responses to core instruction and interventions (Prasse et al., 2012). Within a multi-tiered framework, students are screened for behavior and academic challenges, progress is monitored and data-based decision are made (Chard et al., 2008). School-wide systems (i.e., tier one), including high quality research based instruction, are put in place to support all students academically, socially, and behaviorally; targeted interventions (i.e., tier two) are put in place for students not responding to school-wide supports; and intensive team based systems (i.e., tier three) are put in place for student needing function based intensive interventions beyond what is

received at tier two (Sugai et al., 2000). In schools implementing MTSS effectively, all school staff are directly or indirectly involved in the implementation process. However, an MTSS facilitator or coach often takes a leadership role in the school by coordinating school teams and ensuring fidelity of implementation (Sugai & Horner, 2006). Core features also include school-wide expectations and procedures, social skill instruction and reinforcement, and a team-based problem solving process (e.g., Team Initiated Problem Solving (TIPS) Team) to analyze student data, develop goals, and progress monitor intervention implementation (Horner, Sugai, & Anderson, 2010).

Related Research

The MTSS framework is recognized as a significant advancement of inclusive school reform, and an effective and efficient way of allocating resources in schools to enhance the learning of all students while identifying students in need of additional supports and services (Jimerson, Burns, & VanDerHeyden, 2007; Sailor, 2015). MTSS implementation also increases students' access to academic and behavioral supports and has beneficial effects on students' academic achievement and social skill acquisition (Curtis et al., 2010; Newton et al., 2011; Simonsen, Jeffrey-Pearsal, Sugai, & McCurdy, 2011). Research on the effects of MTSS implementation indicates significant outcomes for the majority students receiving tier one or school-wide level supports; for students in need of additional tier two or targeted supports; and for students needing intensive function-based tier three level intervention (Horner, Sugai, & Anderson, 2010; Nelson et al., 2009; Solomon, Klein, Hintze, Cressey, & Peller, 2012; Wilson & Lipsey, 2007).

Research from randomized controlled trials comparing schools implementing School-Wide Positive Behavioral Interventions and Supports (SWPBIS) to non-

implementing schools indicate that schools trained in SWPBIS significantly reduce office discipline referrals (ODRs) and suspension rates (Benner, Nelson, Sanders, & Ralston, 2012); and were more likely to define and teach behavior expectations (Bradshaw, Mitchell, & Leaf, 2010). Similar results are found for state-level MTSS implementation. For example, elementary, middle and high schools implementing PBIS in Maryland and New Hampshire decreased ODRs, suspension rates, and truancy levels following training in PBIS (Barrett, Bradshaw, & Lewis-Palmer, 2008; Muscott, Mann, & LeBrun, 2008; Pas & Bradshaw, 2012).

Research focused on the impact of MTSS on student outcomes also shows a relationship between academic achievement and MTSS implementation (Benner, Kutash, Nelson, & Fisher, 2013; McIntosh, Sadler, & Brown, 2012). For example, researchers studying 96 schools in the Southeastern United States that received SWPBIS training found that schools considered model sites for implementation (i.e., effectively implemented core components of SWPBIS with fidelity) had higher scores on state accountability measures (Marin & Filce, 2013). Other research shows that students in schools implementing SWPBIS with fidelity improved on reading and math benchmark scores and standardized math assessments (Lassen, Steele, & Sailor, 2006; Sadler & Sugai, 2009; Simonsen et al., 2012).

The beneficial effects of school-wide MTSS implementation are evident in a variety of school settings. In urban high school settings MTSS implementation contributes to decreases in ODR rates and increases in attendance rates (Bohanon et al., 2006; Freeman et al., 2015; Morrissey, Bohanon, & Fenning, 2010). Similar outcomes were found in a study of an elementary, middle, and high school in a low income rural

area of West Texas where PBIS implementation resulted in a decrease in suspension rates at the elementary school, and a decrease in ODRs, tardiness, and failure rates at the middle-high school campus (McCrary et al., 2012).

It is clear that schools implementing the school-wide (i.e., tier one) components of MTSS create learning environments that contribute to meaningful student outcomes. However, not all students respond to school-wide MTSS supports. When students need additional supports, targeted (i.e., tier two) and intensive (i.e., tier three) interventions are needed to address students' academic, behavioral, or social needs. In the MTSS literature, the most commonly studied targeted intervention is Check in/Check out (CICO) (Bruhn, Lane, & Hirsch, 2014). Students participating in the CICO intervention set specific goals addressing problem behaviors in collaboration with school staff and these goals are written on a daily progress report (DPR) (Stage, Cheney, Lynass, Mielenz, & Flower, 2012). Students meet with a designated school staff member (e.g., CICO coach, school counselor, paraprofessional) at the beginning of the school day to review goals and prepare for a successful school day. Students receive verbal feedback from their classroom teachers throughout the day, and feedback is reflected by point totals on the students DPR. At the end of the school day, students check out with the designated school staff member to review their DPR and reflect on progress and areas in need of improvement. Students then discuss their daily progress with parents or guardians at home.

According to research, the CICO targeted intervention has been effectively used to reduce students' problem behaviors (Cheney et al., 2009; Filter et al., 2007; Todd, Campbell, Myer, & Horner, 2008); improve social skills (Hunter, Chenier, & Gresham,

2014; McIntosh, Campbell, Carter, & Dickey, 2009); teach students goal behaviors (Lane, Capizzi, Fisher, & Ennis, 2012; Miller, Dufrene, Joe, Tingstrom, & Filce, 2015); and improve academic skills (Simonsen, Myers, & Briere, 2011; Turtura, Anderson, & Boyd, 2014).

Beyond CICO, targeted tier two level interventions are effectively implemented when school staff assess student academic, behavioral, or social need; teach and reinforce skills to replace problem behaviors; and monitor student progress using data (Mitchell, Stormont, & Gage, 2011). For example, teachers using checklists and structured observation identified students who were demonstrating social and behavior skills deficits during reading instruction (Miller, Fenty, Scott, & Park, 2011). Off-task behaviors were identified as the most prominent deficit, therefore, teachers taught, practiced, and reinforced on-task behaviors (e.g., asking and waiting for help appropriately, completing independent work at desks, cooperative learning with peers) with the identified students during reading instruction. As a result, all students involved in the intervention showed improvement in on-task behaviors during reading instruction (Miller, Fenty, Scott, & Park, 2011).

Tier three interventions are implemented within the MTSS framework and in addition to tier one and tier two level supports. Intensive tier three level interventions include a team-based process that includes functional behavior assessment, selection or development of individualized interventions based on the function of the student behavior, intervention implementation, and frequent monitoring of student progress using data (Scott, Alter, Roseberg, & Borgmeier, 2010; Scott, Anderson, & Spaulding, 2008). School MTSS teams use functional behavior assessment to more deeply understand the

environmental factors that influence and maintain students' behavior so that interventions can specifically address the function of students' problem behavior (Loman & Horner, 2014; McIntosh et al., 2008). Because of the intensity and complexity of students' problem behavior, tier three interventions also often involve community mental health and health agencies, additional parent involvement and multiple school personnel with academic and behavioral expertise (Eber, Hyde, & Suter, 2011).

Summary

MTSS implementation has significant and meaningful behavioral and academic outcomes for students. In addition, school counselors can integrate core components of CSCPs into the MTSS framework at each tier of support to expand their impact on all students. The school counseling core curriculum contributes to school-wide tier one supports by teaching skills aimed at preventing academic, social, emotional, and behavioral challenges for all students in all classrooms. Further, school counselor led psychoeducational and counseling groups are effective targeted tier two interventions for students not responding to school-wide systems and who need additional behavioral, social, or academic skills. Finally, school counselors' specialized skills in individual counseling and collaboration with multiple stakeholders contribute to tier three level supports for students needing intensive, individualized, and function-based interventions to address complex behavioral and academic challenges. Put together, it becomes clear that school counselors and students would benefit from the integration of CSCP and MTSS implementation. Therefore, it is important to examine the alignment of CSCP and MTSS and school counselors' role in MTSS implementation.

School Counseling and MTSS Alignment

A review of the CSCP and MTSS literature indicates the frameworks have shared goals and beneficial outcomes for all students. However, there is limited research and relatively few publications that directly address the alignment of CSCPs and MTSS; or school counselors' role in MTSS implementation. With that said, the growing amount of existing research and literature indicate that when school counselors align CSCPs with MTSS, students benefit in important ways (Betters-Bubon & Donohue, 2016; Campbell, Rodriguez, Anderson, & Barnes, 2013; Curtis et al., 2010; Smith, Evans-McCleon, Urbanski, & Justice, 2015).

School Counselors' Role in MTSS Implementation

CSCPs and MTSS are traditionally implemented as separate frameworks. However, the benefits of aligning CSCPs and MTSS and the role of school counselors in MTSS implementation are recognized by ASCA. According to a recent ASCA Position Statement,

> School counselors are stakeholders in the development and implementation of a multi-tiered system of supports (MTSS) including but not limited to response to intervention (RTI) and culturally responsive positive behavioral interventions and supports (CRPBIS)...Professional school counselors align their work with MTSS through the implementation of a comprehensive school counseling program designed to improve student achievement and behavior. (ASCA, 2014c, p. 38)

The call for school counselors' to align their work with MTSS implementation is again supported in the ASCA School Counselor Competencies where the knowledge, skills, and attitudes school counselors need to meet the need of all students is outlined. As

stated within the program delivery component of the competencies, "school counselors should articulate and demonstrate understanding of...principals of multi-tiered approaches within the context of a comprehensive school counseling program" (ASCA, 2012b, IV-A-8). Indicators of CSCP and MTSS alignment and school counselors' role in MTSS implementation are further illustrated in several foundational ASCA documents. Similar to the goals of MTSS implementation, the ASCA Ethical Standards for School Counselors calls for school counselors to address all students' academic and social needs by advocating for all students through leadership, collaboration, and consultation (ASCA, 2010). The ASCA Mindsets and Behaviors for Student Success, which outlines standards for students, emphasizes the importance of students feeling a sense of belonging in the school environment and demonstrating behavior standards such as learning strategies, self-management skills, and social skills (ASCA, 2014a). These standards align closely to desired outcomes for students in schools where MTSS is implemented (e.g., a safe learning environment conducive to learning is created; students are directly taught learning and social skills).

The importance of school counselors advancing the profession in ways that benefit all students, such as aligning CSCPs with MTSS, is echoed in commentary within the ASCA National Model for comprehensive school counseling programs (ASCA, 2012a). Gysbers (2012) states that school counselors can no longer operate in isolation and that collaboration with other school staff is needed for effective program implementation for all students. Similar sentiments were shared by Sink (2011), who stated "the narrowly focused view of responsive services with the school counselor at the center of these activities has run its course" and "emerging school-wide intervention

models increase the likelihood that all students will obtain needed interventions while shifting the primary responsibility for the delivery of quality responsive services from the counseling department to all members of the school community" (p. iii). Research shows the implementation of CSCPs and MTSS in isolation contributes to beneficial academic, social, and behavioral outcomes for students. However, professional educators may heed the charge of leaders in the field of school counseling to "embrace the past" and "welcome the future" (Gysbers, 2012, ix) by intentionally aligning CSCPs and MTSS to more comprehensively impact all students (Sink, 2011).

Research Outcomes and School Counselor Implementation

Existing literature addressing CSCP and MTSS alignment shows practical implications for school counselors and promising results for students. Research shows that when school counselors take leadership roles in MTSS implementation and MTSS team problem solving, these efforts contribute to improved MTSS implementation (Cressey, Whitcomb, McGilvray-Rivet, Morrison, and Shander-Reynolds, 2014); increased use of student data to set school-wide goals (Cressey et al., 2014); and improved systems for teaching, reinforcing and monitoring expected student behavior (Goodman-Scott, 2014). In addition, school counselors impact MTSS implementation in classrooms. For example, Curtis et al. (2010) studied a school counselor partnering with teachers to analyze student data and develop strategies to implement MTSS in classrooms. This collaboration led to a statistically significant decrease in lost instructional days, office discipline referrals, and out of school suspensions (Curtis et al., 2010).

School counselors have also led efforts to support students not responding to school-wide interventions with targeted (i.e., tier two) supports within an MTSS framework (Campbell et al., 2013; Martens & Andreen, 2013; Ryan & Kaffenberger, 2011; Sherrod, Getch, & Ziomek-Daigle, 2009; Smith et al., 2015). In these cases, school counselors use their skills in data analysis, group counseling, and collaboration to develop, implement, and monitor targeted interventions for students (Gruman & Hoelzen, 2011). These efforts result in a reduction of students' disruptive behaviors and increased academic engagement (Campbell, Rodriguez, Anderson, & Barnes, 2013); and consistent demonstration of expected school-wide behaviors following intervention (Martens & Andreen, 2013; Smith et al., 2015).

Research shows school counselors implement targeted interventions beyond CICO that focus on students' academic achievement and behavior. In one study, a school counselor was a member of an RTI development and implementation team targeting students in need of targeted reading intervention (Ryan & Kaffenberger, 2011). The school counselor collaborated with the RTI leadership team and classroom teachers to review students' academic data, place students in appropriate intervention groups, and monitor progress on grade level reading performance. Notable outcomes included an increase in the percentage of kindergarten and first grade students reading at grade level and high staff ratings of the school counselor in the areas of collaboration, advocacy, intervention implementation, coordination, and communication skills (Ryan & Kaffenberger, 2011). In another study, a school counselor developed a targeted behavior intervention for students who received three or more discipline referrals during the fall semester of school (Sherrod, Getch, & Ziomek-Daigle, 2009). The targeted intervention

consisted of eight counselor led group lessons conducted weekly. Over the course of the intervention, the students learned problem solving, emotion management, and learning skills (Sherrod, Getch, & Ziomek-Daigle, 2009). Weekly pre and posttest data, teacher ratings, and office discipline referral data showed an overall improvement of student behavior and a statistically significant decrease in office discipline referrals received by students participating in the intervention (Sherrod, Getch, & Ziomek-Daigle, 2009).

Existing literature describes school counselors' involvement in MTSS implementation. It is evident that school counselors have opportunities for leadership roles in MTSS implementation and that subsequent interventions within an MTSS framework demonstrate beneficial student outcomes. However, this body of research does not explore the extent of school counselors' knowledge and skills of MTSS or the factors that influence school counselors obtaining the knowledge and skills needed to implement MTSS. Therefore, this study is needed to determine the extent of school counselors' knowledge and skills of MTSS and the factors that influence school counselors' knowledge and skills of MTSS.

ASCA National Model and MTSS Integration

In the field of school counseling, the ASCA National Model (2012a) is the gold standard framework for systematically developing and implementing comprehensive school counseling programs in schools. Complimentary core features and practices of the ASCA National Model (2012a) and MTSS framework can be integrated to more comprehensively support all students (Ockerman, Mason, & Hollenback, 2012). The core features and practices include: (1) a continuum of evidence-based interventions, (2)

leadership for implementation and coordination, (3) continuous use of data and assessment, and (4) advocacy for equity.

Continuum of evidence-based interventions. The ASCA National Model (2012a) and MTSS are systematic frameworks that operate on a continuum of evidence-based practices and interventions. MTSS is well known for being a framework with a continuum of evidence-based interventions. Tier one (i.e., school-wide or universal supports) consists of interventions for all students in all school settings including implementation of the core general education curriculum, school-wide and classroom systems for teaching and reinforcing expected behavior, and consistent systems for responding to problem behavior (Gerzel-Short & Wilkins, 2009). Tier two (i.e., targeted) interventions are developed and implemented for students who do not respond to tier one supports and who need more frequent and targeted interventions (Crone, Hawken, & Horner, 2010). Tier three (i.e., intensive or tertiary) interventions are individualized for students not responding to tier one universal interventions or tier two targeted interventions (Gerzel-Short & Wilkins, 2009).

Within the ASCA National Model (2012a), direct student services are a continuum of evidence-based practices that directly align with the tiers of intervention of the MTSS framework. Direct student services include the school-wide school counseling core curriculum, school-wide programs, and responsive services such as targeted group and individual counseling (ASCA, 2012a). Classroom lessons are systematically delivered to all students in all classrooms to promote the knowledge, skills, and attitudes students need for academic success (Akos, Cockman, & Strickland, 2007). When students need additional supports beyond classroom lessons and school-wide programs,

school counselors implement targeted group interventions for students needing tier two level supports. School counselors are uniquely trained to facilitate group counseling focused on students' academic, social-emotional, and behavioral needs in a small and safe learning environment (Sink et al., 2012). Some students need individualized tier three level support in addition to school-wide programs and group counseling interventions. In this case, school counselors collaborate with classroom teachers, school staff, student families, and outside agencies to ensure students receive the support and resources needed to address complex and often severe problem behaviors (Grothaus, 2013). School counselors also provide individual counseling, skill instruction, and classroom behavioral supports (Pearce, 2009).

Leadership for implementation and coordination. The ASCA National Model (2012a) and MTSS require leadership to ensure the effective implementation and coordination of the frameworks and embedded evidence-based interventions. MTSS leadership teams, often including school counselors, use evidence-based practices, such as the Team-Initiated Problem Solving (TIPS) process, to review student data, define academic, behavioral, and social problems, and develop practical solutions to improve student outcomes (Newton et al., 2011; Todd et al., 2012). MTSS leadership also includes a coach who leads the work of building level MTSS implementation (Scott & Martinek, 2006). Because of school counselors' unique skills to develop and implement classroom, small group, and individual interventions to address students' academic and social-emotional needs (Young, 2012), the coaching role is well suited for school counselors (Goodman-Scott, 2013). Given the requirements for effective CSCP and MTSS implementation and school counselors leadership skills, researchers in the field of

school counseling and MTSS make the case that widespread implementation of MTSS in schools provides an opportunity for school counselor leadership (Cressey et al., 2014; Curtis et al., 2010; Goodman-Scott, 2014; Ockerman, et al., 2012; Ryan & Kaffenberger, 2011; Sugai & Horner, 2006).

Continuous use of data and assessment. Data based decision-making and implementation fidelity assessments are core features and practices of an MTSS framework (OSEP, 2015). MTSS teams use student academic and behavioral data to monitor MTSS effectiveness, and make decisions for students (Newton, Horner, B. Algozzine, Todd, & K. Algozzine, 2012). MTSS teams and school staff also assess implementation fidelity by determining which features of MTSS are implemented, the extent to which these features are implemented, and the impact MTSS implementation has on student and school climate outcomes (Algozzine et al., 2014; Kincaid, Childs, & George, 2010; Sugai, Lewis-Palmer, Todd, & Horner, 2005).

School counselors use data and assessment tools to plan, implement, and evaluate CSCPs. School counselors disaggregate data (e.g., by gender, race, course enrollment) to determine if particular groups of students are underperforming academically or receiving disproportionate amounts of ODRs or suspensions (ASCA, 2012a). Further, school counselors conduct needs assessments to guide program implementation and collect process, perception, and outcome data to evaluate the effectiveness of school counseling practices (ASCA, 2012a). Assessing school counseling program outcomes and analyzing student data allows school counselors to demonstrate accountability, communicate outcomes to school staff, and guide services (Sink, 2009).

Advocacy for equity. The nature of the MTSS framework is conducive to advocacy and equity. School-wide preventative supports are put in place to create a safe and respectful learning environment for all students. This includes equitable discipline practices and procedures (Boneshefski & Runge, 2014). Student and school climate data are continuously collected, analyzed, and used to determine the needs of all students. Data is used to advocate for student groups who are underserved or in need of additional supports and to advocate for resource allocation to key stakeholders (Boneshefski & Runge, 2014). As a prevention and intervention framework, intentional implementation of MTSS allows educators to advocate for students to get the academic and behavioral support needed to succeed and provides equitable supports for all students.

Advocacy is one of four themes of the ASCA National Model (2012a). School use the direct and indirect student services components of the ASCA National Model (2012a) to advocate for all students to receive the academic, personal, social, and career supports they need to succeed in school and to access postsecondary opportunities (2012a). Further, school counselors use the American Counseling Association Advocacy Competencies as a framework to implement advocacy strategies with students or on behalf of students (Ratts & Hutchins, 2009). Finally, school counselors advocate for students in the context of the Multicultural and Social Justice Counseling Competencies Guidelines by using training and professional judgment to determine when to help students develop self advocacy skills and when to advocate for students among school staff, students families, and in the community setting (Ratts, Singh, Nassar-McMillan, Butler, & McCullough, 2016).

Summary

The ASCA National Model (2012a) aligns with the MTSS framework along core features and practices that include: (1) a continuum of evidence-based interventions, (2) leadership for implementation and coordination, (3) continuous use of data and assessment, and (4) advocacy for equity. As leaders of CSCPs, school counselors have a unique opportunity to expand their reach to support all students by integrating CSCPs within the tiers of supports that make up MTSS (Goodman-Scott, 2014). Despite the alignment of the ASCA National Model (2012a) and MTSS framework, a limited but growing amount of research and literature focuses on ASCA National Model (2012a) and MTSS integration. Because of this gap, further exploration of school counselors' knowledge and skills of MTSS is needed (Ryan & Kaffenberger, 2011).

School Counselor Time Spent on ASCA Aligned Activities

The American School Counselors Association (ASCA) provides school counselors with recommendations about how to spend their time to maximize the benefits of school counseling programs for students. However, there is often a discrepancy between how school counselors prefer to spend their time performing ASCA aligned activities and how school counselors actually spend their time. To better understand how school counselors spend time on ASCA aligned activities, a conceptualization of school counselor time, related research, and how time spent on ASCA activities relates to MTSS are explored below.

Definition and Conceptualization

According to the American School Counselor Association (ASCA), the role of the professional school counselor is to "address all students' academic, career and

personal/social development needs by designing, implementing, evaluating and enhancing a comprehensive school counseling program that promotes and enhances student success" (ASCA, 2014d, p.1). In order to implement a CSCP, it is recommended that school counselors spend 80% or more of their time performing direct services (e.g., teaching core curriculum, counseling) and 20% or less of their time performing indirect services (e.g., referrals, consultation, coordinating program) (ASCA, 2012a). Broken down further, Gysbers and Henderson (2012) provided guidelines that school counselors spend (a) 30-40% of their time devoted to responsive services, (b) 35-40% to guidance curriculum, (c) 10-15% to system support, and (d) 5-10% to individual student planning.

Related Research

School counseling researchers have been interested in how school counselors spend their time, especially since the introduction of the ASCA National Model in 2003. The amount of time school counselors spend time on ASCA aligned activities is meaningful given that CSCP implementation contributes to a variety of beneficial student outcomes including improved attendance, fewer suspensions, and fewer reports of bullying (Dimmitt & Wilkerson, 2012). Further, school counselors who implement CSCP aligned with ASCA National Model practices are more likely to have higher levels of job satisfaction compared to school counselors who don't implement CSCPs (Cervoni & DeLucia-Waack, 2011; Pyne, 2011). In contrast, assignment to non-school counseling clerical tasks (e.g., administering tests, lunch duty, scheduling) significantly predicts school counselor burn out (Bardhoshi, Schweinle, & Duncan, 2014).

Research documents that how school counselors spend their time varies (Johnson, Rochkind, & Ott, 2010; Studer et al., 2011). In Arizona, school counselors reported

spending 37% of their time counseling students, 21.6% of their time collaborating with teachers, 18.4% of their time providing systems support, 15% of their time responding to crises, and 12.1% of their time on non-school counseling activities (Kolodinsky, Draves, Schroder, Lindsey, & Zlatev, 2009). Oberman and Struder (2008) surveyed members of the southern region of ASCA and found that 31.5% of school counselors provided small group counseling consistently, 43.1% of school counselors collaborated with teachers frequently, and 28.8% reported doing non-school counseling and clerical tasks on a consistent basis. Sink, Akos, Turnbull, and Mvududu (2008) found that less than half of school counselors studied performed classroom lessons, individual planning, and responsive services within the ASCA recommended time allocation (Sink et al., 2008). Further, Lapan (2012) found that school counselors in Nebraska spend about 32% of their time on system support and non-school counseling tasks, while school counselors in Connecticut spend between 15% and 50% of their time on non-school counseling tasks.

It is clear that for many school counselors, there is a discrepancy between how they prefer to spend their time and how they actually spend their time. Research investigating this discrepancy indicates that school counselors prefer to spend time on activities aligned with the ASCA National Model (Cinotti, 2014; Scarborough & Culbreth, 2008). However, many school counselors, particularly high school counselors spend more time on non-school counseling related activities and less time then preferred working directly with students (Scarborough & Culbreth, 2008). When school counselors' time is not aligned with a CSCP and the ASCA National Model, the beneficial effects of CSCP implementation are diminished (McKillip, Rawls, & Barry, 2012; Zalaquett & Chatters, 2012).

Relationship to MTSS

There is currently no research that specifically measures the percentage of time school counselors spend implementing MTSS. However the growing number of researchers demonstrating school counselors role in MTSS report that school counselors time allocation does not change but that the type of work does shift (e.g., increased use of data, stronger emphasis on equitable access to academic and behavior supports) (Cressey et al., 2014). Further, researchers propose that the integration of CSCPs and MTSS can lead to a more efficient use of school counselors' time (Goodman-Scott, 2014; Goodman-Scott et al., 2016) and increased school counselor leadership capacity (Betters-Bubon & Donohue, 2016).

Summary

When school counselors spend time on ASCA aligned activities, research demonstrates significant student outcomes and higher job satisfaction for school counselors. School counselors prefer to spend time in ASCA aligned activities, however, there is often a discrepancy between how school counselors prefer to spend their time and how they actually spend their time. Although research investigating how school time spent on ASCA aligned activities and MTSS are related is lacking, researchers leading this work suggest that when school counselors spend time implementing MTSS and integrating CSCPs into MTSS, school counselors time is maximized.

Challenges to Obtaining Knowledge and Skills of MTSS

There is a robust body of literature that explores the challenges to obtaining knowledge and skills of MTSS (Bambara et al., 2012; Dulaney et al., 2013; Harlacher & Siler, 2011; Lohrmann et al., 2013; Marrs & Little, 2014). In addition, the challenges

school counselors face in implementing CSCPs have also been explored (Chitiyo & Wheeler, 2009; Lapan et al., 2012; Moyer, 2011; Pyne, 2011; Studer et al., 2011). There is far less literature that specifically explores the challenges school counselors face with regards to obtaining and using the knowledge and skills necessary to implement MTSS. However, the challenges school counselors are likely to face in obtaining knowledge and skills of MTSS can be drawn from the wider literature exploring the challenges to MTSS and CSCP implementation.

Definition and Conceptualization

Challenges to obtaining knowledge and skills of MTSS are defined as factors that impede the adoption, implementation, and sustained practice of the core features of MTSS (e.g., a continuum of evidence-based interventions, leadership, continuous use of data and assessment, advocacy for equity) (Bambara et al., 2012; Freeman et al., 2015). The literature focusing on MTSS implementation is rife with challenges faced by educators primarily because implementation must by systematic, involves buy-in from multiple stakeholders (e.g., students, school staff, parents) and can require a shift form long standing procedures and practices (McInerney, Zumeta, Gandhi, & Gersten, 2014). Identifying the most prevalent and likely challenges to be faced by school counselors seeking to obtain and use the knowledge and skills necessary to implement MTSS is essential to understanding the current state of school counselors' knowledge and skills of MTSS.

Related Research

Researchers have discovered challenges to obtaining knowledge and skills of MTSS by conducting focus groups, interviews, and surveys with a variety of educators.

In separate focus groups with special education directors and school psychologists, participants reported that lack of time, stakeholder attitudes and beliefs, lack of knowledge and skills of evidence-based practices, and lack of training were challenges to obtaining knowledge and skills of MTSS (Sansosti, Goss, and Noltemeyer, 2011; Sansosti, Telzrow, & Noltemeyer, 2010). School personnel implementing MTSS have reported similar challenges during qualitative interviews. Participants reported that a lack of time and staff buy-in (Kincaid, Childs, Blasé, & Wallace, 2007); a lack of administrative leadership and conflicting attitudes and beliefs (Lohrmann, Forman, Martin, & Palmieri, 2008); and a lack of knowledge of MTSS activities were barriers to MTSS implementation (Bambara et al., 2009).

Additional challenges have been found through survey research. In a survey of superintendents, participants reported that a lack of knowledge of MTSS, lack of training, and teacher resistance were challenges to obtaining knowledge and skills of MTSS (Dulaney et al., 2013). Similarly, classroom teachers participating in a survey about their MTSS implementation reported that time, inadequate training, and lack of administrative support were challenges they encountered (Chitiyo & Wheeler, 2009). Finally, researchers surveying a variety of school personnel implementing MTSS found that insufficient time to plan and implement MTSS activities, a lack of knowledge of basic MTSS principles and practices, resistance among school staff, and insufficient training were all reported as barriers to MTSS implementation (Bambara et al., 2012).

Researchers have also examined the challenges school counselors face implementing CSCPs at the state and national level (Scarborough & Luke, 2008; Shillingford & Lambie, 2010). School counselors who participated in a statewide survey

in Wisconsin reported that spending a significant amount of time on non-school counseling related activities (e.g., administering testing and scheduling) and ineffective training were challenges to fully and effectively implementing their CSCPs (Burkard, Gillen, Martinez, & Skytte, 2012). Researchers surveyed school counselors and principals and found similar results (Perusse, Goodnough, Donegan, & Jones, 2004). School counselors reported that a lack of agreement with principals in terms of appropriate school counseling tasks and performing non-counseling clerical tasks (e.g., registration, scheduling, and administering tests) were barriers to CSCP implementation (Perusse et al., 2004).

Other research illustrating the challenges school counselors face implementing CSCPs focuses on specific issues such as student-to-school counselor ratio and administrative support. Several statewide studies found that student-to-school counselor ratios affected the extent to which school counselors effectively implemented CSCPs (Carey & Dimmitt, 2012; Lapan et al., 2012; Reback, 2010a). In Connecticut, results from a school counselor and principal survey showed that school counselors with higher student caseloads reported less time to provide responsive services such as college and career supports (Lapan, et al., 2012). Further, schools with high ratios had higher suspensions and discipline incidents and lower attendance and graduation rates (Lapan et al., 2012). The impact of student-to-school counselor ratios has also been studied in the terms of how policy affects school counseling practice (Truong, 2011). Reback (2010b) found that states with policies supporting the hiring of elementary school counselors, thus reducing student-to-school counselor ratios, showed reductions of student problem behaviors and positive teacher perceptions of school climate and classroom instruction.

The impact of administrative support for school counselors and CSCPs is also evident in school counseling literature (Saginak & Dollarhide, 2006). Studer et al. (2011) surveyed Council for Accreditation of Counseling and Related Education Programs (CACREP) school counseling program graduates from a Southeastern university and found that a supportive administrator was the most frequently reported beneficial factor in successful CSCP implementation (Studer et al., 2011). Similar results were found in a study focused on factors that contribute to school counselor job satisfaction. In this statewide study, administrative support and time to implement a CSCP had significant connections to school counselor job satisfaction (Pyne, 2011).

Relationship to MTSS

A review of the literature related to MTSS and CSCP implementation indicates that a lack of training, lack of administrative support, insufficient time (e.g., non-school counseling activity assignment, high student case load), and resistance of school staff are challenges to obtaining knowledge and skills of MTSS for educators and school counselors alike. Although the literature and research base focused on school counselors implementing MTSS is growing, the challenges school counselors' face obtaining knowledge and skills of MTSS are not directly addressed. However, a clearer understanding of the challenges school counselors face to obtaining knowledge and skills of MTSS is called for by researchers (Chitiyo & Wheeler, 2009; Cressey et al., 2014; Eagle et al., 2015). Therefore, this study is needed to identify the challenges school counselors face to obtaining the knowledge and skill needed to implement MTSS. Identifying challenges could also aid counselor educators, state and district school

counseling coordinators, and practicing school counselors in preparing for and addressing challenges to MTSS implementation in the future.

Summary

There is a lack of literature directly examining the challenges school counselors face to obtaining and using the knowledge and skills necessary to implement MTSS. However, across the MTSS and school counseling literature, four themes emerge as challenges school counselors may face including a lack of training, lack of administrative support, insufficient time (e.g., non-school counseling activity assignment, high student case load), and resistance of school staff. Clearly, more examination is needed.

School Level

School counselors' allocate their time to implement a CSCP based on core components of the ASCA National Model (2012) and professional guidelines that address students developmental needs (Gysbers & Henderson, 2012). Because the developmental needs of students vary by grade level, the implementation of program components at the elementary, middle, and high school levels differ depending on the grade level of the students in the school (Dahir & Stone, 2012). Similar to CSCPs, MTSS implementation is based on core components, and these core components are implemented to fit the context of the school and the academic and behavioral needs of students (Bradshaw & Pas, 2011). To better understand how school level influences school counselors' knowledge and skills of MTSS, school level is defined, related research is explored, and the relationship between school level and MTSS is discussed below.

Definition and Conceptualization

In terms of best practices, school counselors at any school level implement a CSCP aligned with the core components of the ASCA National Model (2012a). However, the way school counselors' implement a CSCP is impacted by the school level they work in (Dahir, Burnham, & Stone, 2009). According to the ASCA National Model (2012a), direct and indirect services for students include the school counseling core curriculum, individual student planning, and responsive services. In the past, ASCA (2005) recommended that elementary school counselors spend approximately 35 to 45% of their time on the school counseling core curriculum, five to 10% of time on individual student planning, 30 to 40% of time on responsive services, and the remaining 10 to 15% of their time dedicated to systems support such as program management, professional development, data analysis, and fair-share responsibilities (Gysbers & Henderson, 2012). As school counselors begin to work with older students, the recommended time allocation begins to shift to account for middle and high school counselors need to spend more time with individual students developing their academic plan and ensuring students are prepared for post-secondary opportunities (ASCA, 2005; Gysbers & Henderson, 2012).

The guidelines for how school counselors spend their time align the developmental needs of the students at the various grade levels. However, rather than suggesting approximate time allocations for each of the core components of a CSCP, the most recent publication of the ASCA National Model (2012a) recommends that school counselors at all levels spend approximately 80% or more of their time with direct and indirect services for students and the remaining time with program planning and school

support (ASCA, 2012a). This change in emphasis gives more flexibility to how much time school counselors spend on each of the core components of a CSCP, and acknowledges that the supports and services students need largely depends on the context of the school and the grade level and need of students (ASCA, 2012a).

For the purpose of this study, school level was defined by the grades of the students who the school counselor works with. School levels include elementary, middle/junior high, high school, kindergarten through eighth grade, and kindergarten through twelfth grade. A wide-variety of grade bands are included in the definition of school level to incorporate the variations in school levels school counselors currently practice in.

Related Research

Elementary school counseling. At the elementary school level, school counselors are a part of students' first opportunity to develop the academic, social, and behavioral skills necessary for school success. National research shows that elementary school counselors rate teaching classroom lessons and facilitating small group counseling as a higher priority than middle and high school counselors (Dahir, Burnham, & Stone, 2009). Classroom lessons and small groups are used to teach, reinforce, and practice foundational skills such as learning skills, social skills, and emotion management strategies (Dollarhide & Saginak, 2012). Social skills are often emphasized at the elementary level because students are developmentally learning how to interact with peers in class, how to initiate and maintain friendships, and how to navigate social interactions such as problem solving or bullying (Pearson, 2012).

Consistent with the ASCA National Model (2012a), elementary school counselors also facilitate the development of students' college and career interests (Knight, 2015). Introducing elementary students to college and career readiness activities establishes a connection between academics and future plans, and exposes young student to future pathways in a way that prevents students from eliminating college and career opportunities based on factors such as gender, socioeconomic status, or ethnicity (Knight, 2015). Individual counseling with elementary students is unique compared to counseling students in middle and high school. Research shows that many elementary students lack the interaction styles and school relationships necessary for positive academic, social, and personal interactions (Davis, Pereira, & Dixon, 2015). School counselors have the unique training and skills to use strategies such as play therapy that align with the developmental level and preferred communication style of young students (Davis et al., 2015).

When it comes to implementing CSCPs aligned with the ASCA National Model (2012a), research shows that elementary school counselors are most likely to implement CSCPs consistent with best practices when compared to middle and high school counselors (Scarborough & Culbreth, 2008). As the sole leader of the school counseling program, elementary school counselors are often given more opportunities to implement core program components, and less likely to be assigned to non-school counseling responsibilities (e.g., testing, scheduling) (ASCA, 2012a; Janson et al., 2009).

Middle school counseling. Middle school students face a number of unique academic, social, and physical challenges (Brion-Meisels, 2015). First, students face a transition from elementary to middle school which includes being the youngest students

in the school rather than the oldest students in the school, and attending larger schools with fewer familiar peers (Dollarhide &Saginak, 2012). Middle school students needs also change from elementary to middle school. Research shows that middle school students' value trust and connection with adults, often rely on peers for support, and have an increasing need for freedom and control (Brion-Meisels, 2015). Middle school students also experience physical changes that affect their cognitive abilities and emotion management including significant changes in the structure and function of the brain (G. Roaten & D. Roaten, 2012). These changes can result in challenges with higher order thinking, judgment, and meta-cognitive thinking (Wright, 2012). These physical changes can also lead to middle school students experiencing intense emotions and variable moods (Wright, 2012).

Given the unique needs of middle school students, school counselors are faced with addressing the increasingly intense social and emotional needs of students while providing assistance with increased academic demands, scheduling, and transitions to high school (Wright, 2012). School counselors are also faced with additional challenges that come with working with a larger number of staff members and large student caseloads (Wright, 2012). Multiple responsibilities and additional administrative responsibilities can leave middle school counselors with less time to implement core components of the ASCA National Model (2012a).

Despite the multiple roles carried out by middle school counselors, middle school counselors consider the developmental stages of the students they work with when designing and implementing their CSCP. For example, middle school counselors implement small group counseling and small group interventions given middle school

students' value of peer relationships and social interactions (Tucker, Smith-Adcock, & Trepal, 2011). The importance of students' developmental level is mirrored in research assessing the priorities of middle school counselors and principals. McCotter and Cohen (2013) found that middle school counselors and principals rated social and personal topics such as self-esteem and bullying prevention as more important than other topics to address during school counselor led classroom lessons.

High school counseling. Developmentally, high school students experience identity development, increased independence, and intensified relationships while preparing for future college and career plans (Dollarhide & Saginak, 2012). The impact of increasing academic and social demands associated with high school is evident in some of the challenges students face. In a national survey of high school students, 24.7% reported being in a fight recently, 7.1% reported not going to school because they felt unsafe, 19.6% reported they were bullied on school property, and 17% reported they had seriously considered attempting suicide (Kann et al., 2014). These challenges affect student populations differently. As of 2015, the national graduation rate is 81% and the drop out rate is 7%, however graduation rates are lower and drop out rates are higher for students of color and students from low-income families (Kena et al., 2015). Once graduated, as much as 20% of first time college students require remedial coursework, indicating that one out of every five students graduate high school unprepared for postsecondary success (National Center for Educational Statistics, 2013a).

To address the academic, social, and postsecondary needs of high school students, school counselors spend more time with individual student planning tasks and place greater importance on career and postsecondary development than elementary and middle

school counselors (Dahir et al., 2009; Studer et al., 2011). Poynton, Lapan, and Marcotte (2015) surveyed over 700 students from 16 high schools who planned to pursue postsecondary education and found that almost half of the graduating seniors had limited financial planning strategies. Based on their findings, the researchers highlight the need for high school counselors to proactively provide differentiated support services that reflect the diverse range of financing approaches being used by students and their families to attend postsecondary education (Poynton et al., 2015).

Qualitative research also reflects how school level impacts the role of high school counselors. African American and Latino students from urban high schools indicated that a lack of positive and supportive relationships with school staff and minimal support selecting courses and making academic plans from school counselors were barriers to positive educational opportunities (Vega, Moore, & Miranda, 2015). Based on the study's results, the researchers suggest that high school counselors ensure that all students have the information needed to pursue postsecondary opportunities, and use data and intervention strategies to support student populations that are typically underserved (Vega et al., 2015).

Relationship to MTSS

In a meta-analysis of MTSS research, Solomon et al. (2012) found that MTSS has been effectively implemented at the elementary, middle, and high school levels. However, it is widely known that each school level differs in many ways including school size, how staff work together, and how policies and procedures are put in place (Flannery, Sugai, & Anderson, 2009). Kaufman et al. (2010) examined office discipline referral data and found that students' problem behavior had developmental patterns.

Researchers found that elementary students received more referrals for aggression, middle school students received more referrals for disrespectful behavior, and high school student received more referrals for attendance problems (Kaufman et al., 2010). Based on results, Kaufman et al. (2010) suggest educators consider the developmental levels of students when determining how prevention and intervention frameworks are implemented. Although core components of the MTSS framework are maintained during implementation at all school levels, school level differences impact how school staff, including school counselors, gain the knowledge and skills necessary to implement MTSS frameworks (Bohanon et al., 2006; Flannery, McGrath, McIntosh, & Fenning, 2014; McIntosh, Flannery, Sugai, Braun, & Cochrane, 2008).

A majority of MTSS implementation literature and research focuses on the elementary school level (Solomon, et al., 2012). Research shows that elementary school staff are trained and implement MTSS relatively quickly, buy-in to the implementation process, interact positively, and show a shared commitment to students (Bradshaw et al., 2008). Research focused on MTSS implementation at the elementary level reveals that the context of elementary schools is unique, and specific factors contribute to successful implementation at this school level (Bradshaw et al., 2010; Horner et al., 2009; Menendez, Payne, & Mayton, 2009). Elementary schools have fewer administrators and school staff compared to middle and high schools. Centralized leadership allows for more direct decision-making regarding how staff are trained, staff allocation, and how student supports are implemented. Finally, elementary school staff may be more likely to buy-in to core components of MTSS such as explicitly teaching behavior expectations, reinforcing expected behavior, using progressive discipline processes, and collaborating

with parents, given the developmental level and needs of elementary students (Bradshaw et al., 2010; Menendez, Payne, & Mayton, 2009). This was echoed in state-level research that found elementary schools more fully implemented tier one components and tier two and three academic supports compared to middle and high schools (Lane, Carter, Jenkins, Dwiggins, & Germer, 2015).

Researchers have long called for MTSS to be implemented and evaluated at the middle and high school levels (Bradshaw et al., 2009). Compared to the elementary school level, middle schools are often larger in size, have more staff, and are logistically more complex given that students have multiple teachers in multiple academic departments (Prewett et al., 2012). In addition, middle schools face the challenge of providing continuity for students coming from elementary school and improving students basic academic skills while increasing the difficulty of course content (Prewett et al., 2012). Given these factors, ample time for collaboration among staff is needed for data-driven decision-making, coordination of academic and behavioral interventions, and professional development (Dulaney, 2013).

MTSS is implemented in all school levels nationally, however, fewer high schools implement MTSS than middle or elementary schools (Freeman et al., 2015). For example, in a national study of schools implementing School-Wide Positive Behavior Interventions and Supports (SWPBIS), only about 13% of the schools implementing SWPBIS were high schools (Freeman et al., 2015). Implementation of MTSS at the high school level is growing, and research shows that there are multiple factors that make implementation unique and at times challenging (National High School Center, 2010). Developmentally, high school students participate in more at-risk behaviors, are

disciplined for increasingly intense problem behaviors, and experience pressure for high academic achievement (Bohanon et al., 2006). High school staff may perceive students as too old to need direct behavior instruction or reinforcement for expected behavior, despite research showing that these core MTSS practices are effective strategies for reducing problem behaviors in high schools (Morrissey et al., 2010). High schools are also more likely to have larger and more diverse student populations compared to middle and elementary school levels (Flannery et al., 2013). Because high schools are larger, school staff are organized by department, and these departments often function independently and have autonomy in terms of establishing rules and procedures used in the classroom (Flannery et al., 2013). This structure leads to teachers focusing on their individual classroom and content area, with less interest in the school-wide or tiered components of MTSS (Flannery et al., 2013).

Summary

School level impacts how CSCPs and MTSS are implemented. Research shows that school level characteristics such as school size, staff organization, and philosophical beliefs about student development influence how staff are trained, and how they spend time implementing student supports such as CSCPs and MTSS. School counselors gain the knowledge and skills to implement CSCPs at various school levels in graduate level training and ongoing professional development; however, research is needed to determine how school level impacts school counselors obtaining the knowledge and skills necessary to implement MTSS.

School Setting

School counselors implement CSCPs in rural, suburban, and urban school settings. These settings impact the way in which school counselors' work because of the unique needs of students, parents, and the larger community. To better understand how school setting influences school counselors' knowledge and skills of MTSS, school setting is defined, related research is explored, and the relationship between school setting and MTSS is discussed below.

Definition and Conceptualization

School setting refers to the location of a school and is characterized by population size and proximity to urban centers (National Center for Education Statistics, 2013b). A rural school setting describes schools within a census-defined rural area that is anywhere from five (i.e., fringe rural) to 25 (i.e., remote rural) miles from an urbanized area (National Center for Education Statistics, 2006). According to the most recent national education data, there were approximately 32,000 public schools in rural areas, making up nearly one-third of the total public schools in the U.S. (National Center for Education Statistics, 2013b). A suburban school setting describes schools outside a principal city but inside an urbanized area (National Center for Education Statistics, 2006). According to the most recent national education data, there were approximately 27,000 schools in suburban areas (National Center for Education Statistics, 2013b). Finally, an urban school setting describes schools that are inside an urbanized area and inside a principal city (National Center for Education Statistics, 2006). According to the most recent national education data, there are 26,000 schools in urban areas (National Center for Education Statistics, 2013b). Overall, fewer students were enrolled in rural school

settings (12 million) compared to suburban (17 million) and urban (14 million) school settings (National Center for Education Statistics, 2013b).

Related Research

In a study of the differences between high performing suburban middle schools and low performing urban middle schools, Brown, Anfara, and Roney (2004) found several themes relevant to school counselors. In the sample, teachers in high performing suburban schools reported being familiar with curriculum standards and that standards reflected what they were already doing. In contrast, teachers from low performing urban schools reported feeling that curriculum standards were imposed on them and had concerns about students being able to reach standards (Brown et al., 2004). Brown et al. (2004) also found that teachers in high performing suburban schools reported that students were actively engaged in the learning process whereas teachers from low performing urban schools reported student challenges with test taking and poor reading skills, and a need for accommodations (Brown et al., 2004).

The perceptions and realities of the school settings described in the Brown et al. (2004) study are not generalizable to all schools. However, the study reflects widely held beliefs about the differences between school settings. These differences have the potential to impact school counselors' work with students as well as school counselors obtaining knowledge and skills of MTSS.

Rural school setting. School counselors in rural school settings face unique challenges such as fewer resources, fewer opportunities for collaboration, and increased geographic isolation compared to schools in suburban and urban settings (Griffin & Galassi, 2010; Grimes, Haskins, & Paisley, 2013). As leaders in rural settings, school

counselors may be assigned to multiple schools, have multiple roles, and face boundary issues as a result (Wilson, Schaeffer, & Bruce, 2015; Wimberly & Brickman, 2014). In addition, rural school counselors face challenges resulting from students' high-risk behaviors such as alcohol use, drug use, and suicide which can all be intensified in rural settings (Renes & Strange, 2009; Schmidt, Iachini, George, Koller, & Weist, 2015).

School counselors play a critical role in supporting traditionally underserved students in rural school settings (e.g., LGBTQ youth, ethnic minorities) by implementing CSCPs designed to address the unique needs of these students (Maxwell, 2014; O'Connell, Atlas, Saunders, & Philbrick, 2010; Pietrantoni, Glance, & Smith, 2015; Villalba, Brunelli, Lewis, Orfanedes, 2007; Villalba, Ivers, & Ohlms, 2010). These efforts include implementing core practices embedded in the ASCA National Model such as analyzing data, student advocacy, staff training, collaboration and consultation (ASCA, 2012a). When CSCPs are used to address underserved students in rural settings, school counselors contribute to an improved school environment, increased student engagement, reduced discipline problems, and higher student achievement (Barnes, Scofield, Hof, & Vrbka, 2005; Carey, Harrington, Martin, & Hoffman, 2012).

Research also shows that high school students from rural school settings face additional challenges in terms of accessing and transitioning to post-secondary opportunities. These challenges include facing an increased campus size and community, becoming comfortable with racial and ethnic diversity, and adjusting to increased social, academic and career options (Guiffrida, 2008). Due to geographic location, students in rural settings may also have less access to job shadowing opportunities and mentoring that expose many high school students to potential career pathways (Hutchins & Akos,

2013). Given these challenges, researchers emphasize the need for school counselors in rural settings to provide in-school career interventions to address barriers and increase student self-efficacy (Ali & Menke, 2014; Baugher & Nichols, 2008). When school counselors provide these supports, high school students in rural settings develop meaningful career goals, understand how their interests and strengths align with potential careers, and develop work readiness behaviors (Lapan, Aoyagi, & Kayson, 2007).

Rural school settings also impact the knowledge and skills school counselors need to effectively implement CSCPs. The training and professional development opportunities school counselors' need are often limited in rural areas (Robertson & Full, 2015). Researchers studying school counseling in rural settings urge school counselors to be creative and fill the training gap by connecting with educational leaders outside their school district (e.g., university faculty, online organizations), and attending state and national conference and training opportunities (C. Darch, Shippen, E. Darch, Patterson, & Massey, 2014; Monteiro-Leitner, Asner-Self, Milde, Leitner, & Skelton, 2006; Robertson & Full, 2015).

Suburban school setting. There is a lack of research and literature that specifically addresses the unique features of suburban schools in relation to school counseling. However, Watson (2012) sheds much needed light on why this might be the case. Watson (2012) interviewed 16 middle-class and White urban teacher education students over the course of one year to explore their beliefs about urban students and urban teaching. Watson found that the teachers used middle class White students attending suburban schools as a normative reference group against which other groups were compared and judged (Watson, 2012). Further, students who were not middle class

White and attending suburban schools (i.e., students in rural or urban settings, students of color) were assigned a negative value compared to this normative group. Watson (2012) introduced the concept of norming suburban to describe how teachers in the study used middle class White students as a normative reference. Watson (2012) also found that the teachers in the study described urban teaching as teaching poor students of color, despite not knowing the ethnicity and socioeconomic status of the students they were describing. Watson's (2012) research explains, in part, the lack of research specifically examining the unique characteristics of school counseling suburban school settings.

Despite a lack of research exploring school counseling in suburban school settings, research in suburban school settings illustrates how suburban school settings impact school counselors' work. Lynn et al. (2010) conducted a series of focus groups and interviews with suburban teachers, school counselors, and administrators as part of an 18-month ethnographic study to examine beliefs about underperforming African American students. Among other findings, the researchers revealed that educators who wanted to advocate and make a difference for the underperforming students did not feel safe to do so in a suburban environment in which other educators blamed students, families and the community for the achievement gap between African American students and other students (Lynn et al., 2010). Shamsuddin (2016) found that students attending wealthy suburban schools had more access to information about college pathways than students attending urban schools. In addition, suburban schools provided more resources, encouraged students to learn about post-secondary options, and allocated space and staff time for career centers and college advising. Research comparing college counseling across high school settings shows similar results. Perna et al. (2008) found that school

counselors are more likely to encourage students of higher socioeconomic status to attend four-year colleges; and that students who did not proactively seek out contact with counselors or attend a high school with a college going culture, were less likely to receive adequate college counseling.

Urban school setting. Students in urban school settings experience environmental stressors such as exposure to violence, poverty, and crime and research shows these stressors are linked to mental health issues and academic struggles (Miller & Townsend, 2005; Yeh, Borrero, & Shea, 2011). The stressors faced by urban students directly affects the work of urban school counselors, often making CSCPS implementation more challenging than in rural and suburban settings (Lee, 2005; Miller, Webster, & MacIntosh, 2002). To meet this challenge, researchers call for school counselors in urban school settings to understand the unique experience of urban students in order to develop and implement CSCPs that meets students' needs (Day-Vines & Day-Hairston, 2005).

Holcomb-McCoy & Mitchell (2005) assessed urban school counseling programs using the Urban School Counselor Questionnaire and found that school counselors perceived low family functioning, academic achievement, and poverty as the most prevalent issues for students in urban school settings. Other research found that school counselors working in urban schools face unique challenges such as low student academic performance, high student mobility rates, student absenteeism, and student psychosocial issues (Holcomb-McCoy, 2005; West-Olatunji, Frazier, & Kelly, 2011). To counteract the negative effects of these issues on students, school counselors use specialized training to implement core components of a CSCP to address the unique

academic, social-emotional, developmental, and environmental needs of urban students (Cooley-Strickland, Griffin, Darney, Otte, & Ko, 2011).

According to research assessing urban students' needs, building rapport and strong relationships with students is foundational to effectively working in urban settings (Wilkins, 2014; Williams & Portman, 2014). School counselors can use their specialized training in supporting the social and personal development of all students to build these much needed relationships. The unique cultural characteristics of urban students also impacts the knowledge and skills school counselors need to work in urban settings (Day-Vines & Day-Hairston, 2005). According to the National Center for Education Statistics (2013b), students in urban school settings are more ethnically diverse and from lower socioeconomic backgrounds than students in rural and suburban school settings. School counselors must be knowledgeable about how these cultural factors affect students (e.g., academics, discipline) in order to support urban students with the academic and behavioral skills needed to succeed in school (Day-Vines & Day-Hairston, 2005).

Urban school settings also impact how school counselors develop and implement the career development component of CSCPs. De La Rosa & Tierney (2005) collected 8,000 student surveys, conducted 250 interviews, and observed 50 financial aid events and found six challenges urban students face when transitioning from high school to college. In this study, students perceived college to be unaffordable, reported teachers and school counselors did not provide college and financial information to all students, felt efforts to provide college information were not individualized enough, wanted more support with decision-making, and urban families lacked the information to support students with the college application process (De La Rosa & Tierney, 2005). Malone

(2013) found that students in urban school settings rely on school counselors and family as a primary source for information and resources for college and post-secondary opportunities.

A review of the literature reveals that many school counselors want to work in urban school settings (Gopaul-McNicol, 2001). However, there is a need for school counselors to have the knowledge and skills to implement effective evidence based interventions to support urban students (Holcomb-McCoy, Young, & Gonzalez, 2011; Martin, 2009; Mitcham, Portman, & Dean, 2009; Owens, Pernice-Duca, & Thomas, 2009). When provided with ongoing professional development and training, urban high school counselors increased student completion of the Free Application for Federal Student Aid (FAFSA), increased the number of students receiving college scholarships, and increased student registration for the SAT and ACT (Jones, Van Belle, Johnson, & Simmons, 2014). In addition, professional development focused on the leadership skills needed to support urban students with college and career readiness contributed to increased student enrollment in Advanced Placement courses and increased Advanced Placement test passing rates ACT (Jones, Van Belle, Johnson, & Simmons, 2014).

Relationship to MTSS

MTSS has been effectively implemented in rural, suburban, and urban settings (Dexter, Hughes, & Farmer, 2008), and researchers recognize the potential for school counselors to have a central role in leading this work (Pearce, 2009). However, school setting impacts MTSS implementation in many of the same ways it impacts school counselors and CSCPs. Factors unique to rural school settings and MTSS implementation include long distance traveling for technical support and training, fewer

resources, and difficulty hiring and retaining qualified school staff (Bergstrom, 2008; Dykes, 2009). Further, the more remote the rural school setting, the more these factors impact MTSS implementation (Kashi, 2008).

Brendle (2015) conducted a survey of rural elementary schools implementing MTSS in Texas and found that school staff reported some knowledge of the MTSS process and demonstrated effective team problem solving. However, Brendle (2015) highlights the impact of school setting on MTSS implementation in that many of the rural schools had limited resources, personnel with varied training, and limited funding that is required for effective MTSS implementation. The impact of school setting on MTSS implementation was most evident in the finding that some staff understood the MTSS process more than others and key components of interventions were not in place (e.g., progress monitoring); indicators of the need for ongoing access to training, support and personnel with the knowledge and skills to implement MTSS (Brendle, 2015).

These findings supports the notion that despite the challenges of MTSS implementation in rural school settings, when training and support are provided and school staff buy-in to the process, students in rural school settings benefit academically and experience an improved school climate (Lane, Kalberg, Bruhn, Mahoney, & Driscoll, 2008; Leedy, Bates, & Safran, 2004; A. Ruiz, G. V. Ruiz, & Sherman, 2012). Although implementation may look different, additional outcomes of MTSS implementation in rural school settings include increased use of data based decision making, increased staff collaboration, and the creation of a common language and knowledge among staff (Shepherd & Salembier, 2011; Stecker, Fuchs, & Fuchs, 2008).

Urban school settings impact MTSS implementation in many of the same ways they affect CSCPs. Urban schools are characterized by large and diverse student populations, limited resources, and high poverty rates (Bohanon et al., 2006). These factors affect MTSS implementation because more resources and staff are needed to implement tiered supports in larger schools (Bohanon et al., 2006). In addition, students in urban school settings are increasingly diverse (e.g., culturally, linguistically, academic needs) and these student populations are historically underserved, disproportionately disciplined, and overly represented in special education (Cramer, 2015; Kaufman et al., 2010). Therefore, MTSS implementation in urban school settings is critical to providing all students with the academic and behavioral support needed to succeed in school.

Literature shows that urban school settings have higher percentages of students with problem behavior and these behaviors are more intense than in rural and suburban school settings (Feuerborn & Tyre, 2012; Lassen, Steele, & Sailor, 2006; McCurdy, Kunsch, & Reibstein, 2007). Given this trend, it is increasingly important for school staff to have the knowledge and skills to MTSS in urban school settings. When in place, MTSS has long-term beneficial effects for students in urban school settings including reduced ODRs and suspensions, fewer trips to the office for discipline, and more appropriate responses to adult expectations (Lassen, Steele, & Sailor, 2006; Richards et al., 2014; Weiland, Murakami, Aguilera, & Richards, 2014). Multiple studies also found that urban teachers benefited in a variety of ways from implementing MTSS including feeling more capable of managing problem behaviors (Richards et al., 2014); increased use of data to progress monitor and identify students in need of supports (Greenfield,

Rinaldi, Proctor, & Cardarelli, 2010); and fewer inappropriate referrals to special education (Rinaldi, Averill, & Stuart, 2011).

Summary

CSCPs and MTSS have been implemented in a rural, suburban, and urban settings with significant results for student outcomes overall school functioning. Although these frameworks incorporate core components regardless of setting, it is clear that unique characteristics of school settings impact the needs of students and therefore, the way in each framework is implemented. Consequently, school setting impacts the role of the school counselor and the extent to which school counselors obtain the knowledge and skills needed to implement MTSS.

Type of MTSS Training

A small but growing number of publications describe school counselors' involvement in MTSS implementation. Even fewer publications discuss the type of MTSS training school counselors receive and the implications of this training on school counselors' knowledge and skills of MTSS. However, the research and literature describing school counselors' involvement in MTSS implementation clearly expresses a need for school counselors to engage in training to develop knowledge and skills of MTSS (Cressey et al, 2014; Curtis et al., 2010; Goodman-Scott, 2014; Goodman-Scott, Betters-Boubon, & Donohue, 2015; Martens & Andreen, 2013; Ockerman et al., 2012; Sherrod et al., 2009). To better understand how training influences school counselors' knowledge and skills of MTSS, MTSS training is defined, related research is explored, and the relationship between training and school counselors' knowledge and skills of MTSS is discussed below.

Definition and Conceptualization

School staff obtain the knowledge and skills needed to implement MTSS through training (Freeman, Miller, & Newcomer, 2015). MTSS training may take many forms, however, best practices guide how MTSS training is defined and conceptualized. The development and delivery of comprehensive MTSS training is typically a partnership between state departments of education, universities, and school districts (Horner et al., 2014). State level MTSS experts provide training to regional and district level coaches. Regional and district level coaches then train school MTSS teams (Freeman et al., 2015). Regional or district coaches also provide support to school MTSS teams to assist in following through with training, adapting MTSS practices to fit school contexts, and collecting progress monitoring and fidelity data (Freeman et al., 2015; Horner et al., 2014). A central focus of effective MTSS implementation is also the identification and development of a building level coach who takes on a leadership and coordination role for MTSS implementation (Horner et al., 2014). The district level coach and building level coach then partner to coordinate the ongoing staff training and technical support needed to effectively implement MTSS (Horner et al., 2014). Ongoing training includes annual training events (e.g., district, state, national workshops and conferences), scheduled in-service trainings aimed at developing specific MTSS knowledge and skills, and monthly meetings involving district coaches supporting MTSS teams with team problem solving processes and overall MTSS implementation (Mathews, McIntosh, Frank, & May, 2014). The research below provides a deeper understanding of school counselor training and describes how MTSS training relates to school counselors knowledge and skills of MTSS.

Related Research

School counselors are trained to support all students' academic, personal, social, and career development by implementing a CSCP aligned with the ASCA National Model (2012a). Further, ASCA (2014c) calls for school counselors to align CSCPs with MTSS. However, despite comprehensive pre-service school counseling graduate programs and continuing professional development, many school counselors do not receive MTSS training and the impact of training on school counselors' knowledge and skills of MTSS is not often measured. With that said, a review of research on school counselors training indicates that training improves school counselors' knowledge and skills on a variety of important topics. Further, preliminary research shows that MTSS training improves school counselors' knowledge and skills of MTSS and increases school counselors' capacity to meet the needs of all students (Betters-Bubon & Donoue, 2016; Cavanaugh & Swan, 2015; Goodman-Scott et al., 2015).

An increasing number of school counseling programs have Council for Accreditation of Counseling and Related Education Programs (CACREP) accreditation and faculty with school counseling experience (Perusse, Poynton, Parzych, & Goodnough, 2015). In addition, school counselor preparation programs are increasingly addressing the need for school counselors to be able to collect, analyze and use data to make decisions and to conduct action research to show the impact CSCPs have on students (Young, Gonzales, Owen, & Vale-Heltzer, 2014). However, there continues to be a call for school counseling preparation programs to provide practical, relevant, and comprehensive training in key areas needed for school counselors in training to

implement CSCPs and other frameworks to meet the needs of all students in today's schools (Goodman-Scott, 2015; Knight, 2015; Slaten, Scalise, Gutting, & Baskin, 2013).

Researchers have shown that school counselor preparation programs that intentionally incorporate training in key areas contribute to knowledgeable and skillful school counselors. Walley and Grothaus (2013) interviewed secondary school counselors about their preparation to recognize and respond to the mental health issues of adolescents. Participants reported that graduate coursework and experiential learning opportunities (e.g., practicum and internship) were beneficial and provided them with the knowledge and skills to meet the mental health needs of adolescents (Walley & Grothaus, 2013). Savitz-Romer (2012) interviewed urban school counselors about their graduate education in school counseling and found that the integration of postsecondary readiness and planning skills into the school counseling curriculum was essential to prepare school counselors to effectively promote college access and career readiness for urban students. Participants also reported that school counseling preparation programs with an overemphasis on clinical counseling, lack of attention to the educational context of schools, and an absence of college and career readiness coursework impeded their ability to meeting the college and career readiness needs of all students (Savitz-Romer, 2012).

Following graduation, school counselors seek out training opportunities to improve and advance their knowledge and skills. A survey of ASCA members showed that the number of attended training opportunities was related to increased levels of professional growth and higher levels of expected professional growth (Konstam et al., 2015). Unfortunately, systematic and comprehensive training opportunities, such as state training models, are often not available (ASCA, 2007). However, when school

counselors do receive training, the impact of training on school counselors' knowledge and skills is evident. School counselors with higher levels of multicultural competency training (e.g., multicultural courses, research projects, workshops) were more likely to challenge their beliefs about race equality and more likely to believe that race matters in their work (Chao, 2013). Steele, Jocokes, and Stone (2014) found that school counselors with more technology training were more likely view technology as beneficial to their works and reported feeling more comfortable using technology than school counselors with less training. Researchers reiterate that training school counselors to implement CSCPs and apply other skills to meet student needs should include direct coaching and support and follow-up consultations rather than only providing didactic training as is typically the case, training (Burkard et al., 2012).

Training is also essential to providing school counselors and other educators with the knowledge and skills needed to effectively implement MTSS (Feuerborn & Tyre, 2012). Multiple large-scale studies of school MTSS teams indicate that comprehensive and ongoing training is a critical feature that consistently predicts sustained MTSS implementation over time (Gravois & Rosenfield, 2005; Mathews, McIntosh, Frank, & May, 2014; Pinkelman, McIntosh, Rasplica, Berg, & Strickland-Cohen, 2015). Researchers indicate that one time building level workshops using a lecture style or one-size-fits-all approach is not effective for MTSS implementation training (Feiker-Hollenbeck & Patrikakou, 2014). Instead, multiple studies show that a combination of whole staff, MTSS team, role specific, and trainings that include practical application and ongoing follow up support are more effective (Lohrmann et al., 2013).

The use of a comprehensive approach to MTSS training is evident in Illinois, a national leader in MTSS implementation. A recent survey revealed that educators received 79% of their training at the district level, 55% at the building level, and 48% at the state level (Feiker-Hollenbeck & Patrikakou, 2014). In another study, researchers compared types of training and found that teachers who received intensive training that included a one-day workshop, four days of experiential learning and practice, and follow up behavioral consultation support improved on measures of behavioral management and use of praise more than teachers who only received the one-day workshop and follow up behavior consultation support (Fabiano et al., 2013). In addition, participants involved in sustaining MTSS implementation over several years were interviewed and indicated that mechanisms for training staff, networking with district peers implementing MTSS, and attending annual MTSS conferences were critical to successful MTSS implementation (Andreou, McIntosh, Kahn, & Ross, 2015). Despite multiple studies linking affective type of training to the development of school staffs knowledge and skills of MTSS, the relationship between training and school counselors knowledge and skills of MTSS is much less understood.

Relationship to MTSS

To date, researchers interested in the alignment of CSCPs and MTSS have described school counselors role in MTSS implementation, proposed conceptual models of CSCP and MTSS integration, and indicated beneficial student outcomes as a result of school counselors involvement in MTSS (Cressey et al, 2014; Curtis et al., 2010; Goodman-Scott, 2014; Goodman-Scott, Betters-Boubon, & Donohue, 2015; Martens & Andreen, 2013; Ockerman et al., 2012; Sherrod et al., 2009). In addition, these

researchers call for school counselors to further their understanding and involvement in MTSS implementation (Cressey et al, 2014; Curtis et al., 2010; Goodman-Scott, 2014; Goodman-Scott, Betters-Boubon, & Donohue, 2015; Martens & Andreen, 2013; Ockerman et al., 2012; Sherrod et al., 2009). However, few publications have directly addressed how MTSS training influences school counselors' knowledge and skills of MTSS.

In the first study of its kind, Ockerman, Patrikakou, and Hollenbeck (2015) surveyed 75 members of the Illinois School Counselors Association to assess their perceptions of their training and knowledge of RTI (i.e., a type of MTSS). The researchers discovered that the majority of school counselors surveyed believed RTI could improve behavioral and academic outcomes for students, however, over 40% reported little confidence in their skills to implement key components such as parental involvement, collaborative practices, and analyzing and using data to make decisions (Ockerman et al., 2015). Given that these practices are essential to RTI implementation, Ockerman et al. (2015) called for improved training for pre-service and practicing school counselors to advance school counselors' knowledge and skills of RTI. Ockerman et al. (2015) concluded by stating "a national study is needed to examine school counselors' preparedness, especially in states implementing RTI. A survey of this magnitude would foster a more comprehensive view of practicing school counselors and thus assist school districts in addressing professional development needs" (p. 180). In addition, Ockerman et al. (2015) called for school counseling preparation programs to integrate MTSS training into course work, practicum, and internship experiences to best prepare school counselors to meet the needs of all students in today's schools.

Most recently, Betters-Bubon & Donohue (2016) describe the impact MTSS training had on their practice as school counselors prior to their role as counselor educators. As school counselors, the researchers were actively involved in adopting, developing and implementing MTSS in their schools. As a result, the researchers reported that MTSS training increased their leadership capacity related to data collection, decision-making, school climate improvement, and effective behavior interventions (Betters-Bubon & Donohue, 2016). In addition, the researchers reported that MTSS training benefited how the school counselors in their buildings delivered the CSCP (Betters-Bubon & Donohue, 2016). Overall, MTSS training improved the researchers knowledge and skills of MTSS, and in turn contributed to important student outcomes (e.g., reduced number of student ODRs) (Betters-Bubon & Donohue, 2016).

Finally, research that evaluated the effects of a MTSS coaches training involving school counselors and other school personnel indicates that the MTSS training led to increased implementation fidelity, reduced ODRs and suspensions in coaches schools, and an improvement of coaches knowledge and skills of MTSS (Cavanaugh & Swan, 2015). Taken together, the research exploring the influence of MTSS training on school counselors' knowledge and skills of MTSS indicates that when school counselors receive comprehensive MTSS training, their knowledge and skills of MTSS improve and these improvements benefit students. In addition, research supports the need for the this study in order to gain a national understanding of school counselors knowledge and skills of MTSS.

Summary

School counselors are trained to implement CSCPs through the ASCA National Model to support all students' academic, personal, social, and career development (2012a). Despite calls for school counselors to be an integral part of MTSS implementation, little focus has been placed on training school counselors in MTSS or determining the impact MTSS training has on school counselors' knowledge and skills of MTSS. However, leading researchers in school counseling and MTSS have begun to show that when school counselors receive comprehensive MTSS training, their knowledge and skills of MTSS improve (Ockerman et al., 2015; Betters-Bubon & Donohue, 2016; Cavanaugh & Swan, 2015).

Summary and Conclusions

The purpose of this study was to examine how time spent on ASCA aligned activities, challenges to obtaining the knowledge and skills of MTSS, school level, school setting, and type of MTSS training influence school counselors' knowledge and skills of MTSS. School counseling and MTSS have been widely discussed and researched independently in the literature; however, the integration of these two fields has only begun. In order to address the gap in literature, this chapter reviewed CSCPs and MTSS, how school counselors spend time on ASCA aligned activities, challenges school counselors face to obtaining knowledge and skills of MTSS, school level and school setting, and type of training to further understand how these factors influence school counselors knowledge and skills of MTSS.

It is clear that the role of school counselors and the school counseling profession have evolved over the past century. It is also clear that when school counselors

implement CSCPs aligned with the ASCA National Model (2012a), significant academic and behavioral student outcomes occur. MTSS is a framework with a continuum of evidence-based practices designed to respond to the academic and behavioral needs of all students. Similar to CSCPs, when MTSS is implemented, students demonstrate measurable academic and behavioral success. The core features and practices of the ASCA National Model (2012a) and MTSS framework align in ways that maximize school counselor's potential to reach all students. CSCPs via the ASCA National Model (2012a) and MTSS are both continuums of evidence-based practices, require skilled leadership for implementation and coordination, rely on continuous use of data and assessment, and are implemented to advocate for equity and access to education for all students.

A review of the literature reveals that a lack of administrative support, insufficient time, and resistance of school staff are challenges to obtaining knowledge and skills of MTSS. Although the literature does not yet address challenges school counselors face to obtaining knowledge and skills of MTSS, it is likely that challenges to obtaining knowledge and skills for CSCP and MTSS implementation also impact school counselors obtaining knowledge and skills of MTSS. The school counseling and MTSS literature also illustrates how school level impacts CSCP and MTSS implementation. School level characteristics such as school size, staff organization, and philosophical beliefs about student development influence how staff are trained, and how staff spend time implementing student supports such as CSCPs and MTSS. Therefore, school level is likely to impact the extent to which school counselors obtain the knowledge and skills needed to implement MTSS, however, more research is needed.

CSCPs and MTSS have been successfully implemented in a variety of school settings. The core components of each system is implemented regardless of school setting, however, the literature indicates that unique characteristics of rural, suburban, and urban school settings impact the needs of students and therefore, the way in each framework is implemented. Consequently, school setting impacts the role of the school counselor and the extent to which school counselors obtain the knowledge and skills needed to implement MTSS. Training also impacts how CSCPs and MTSS are implemented. School counselors and educators implementing MTSS must be adequately trained to implement practices that benefit all students. Literature examining the impact of training shows that effective training includes a combination of types (e.g., in-service, conferences, coaching, experiential practice, ongoing support). When school counselors receive training, it is clear their knowledge and skill improves in measurable ways. Leading researchers have demonstrated that training school counselors in MTSS improves school counselors knowledge and skills, and call for school counselors to become more knowledgeable and skilled in MTSS. However, more research is needed to determine the impact MTSS training has on school counselors' knowledge and skills of MTSS.

A review of school counseling and MTSS literature shows that time spent on ASCA aligned activities, challenges to obtaining the knowledge and skills of MTSS, school level, school setting, and type of MTSS training are all factors likely related to school counselors' knowledge and skills of MTSS. However, the extent to which these factors relate to school counselors' knowledge and skills of MTSS is unclear given that research examining these relationships has yet to be conducted. Therefore, survey

research was used to examine these relationships. The methodology of this study is described in the following section.

CHAPTER III: METHOD

The purpose of this study was to examine the factors that relate to school counselors' knowledge and skills of Multi-Tiered Systems of Supports (MTSS). This chapter includes descriptions of the research questions, participants, procedure and data collection instruments, and research design and data analysis.

Participants

The participants in this study are K-12th grade licensed school counselors. There are 30,380 members of the American School Counselor Association (ASCA) nation-wide (S. Wicks, personal communication, February 10, 2016). A total of 18,389 of the 30,380 ASCA members are professional members (S. Wicks, personal communication, February 10, 2016). Of the professional members, 4,537 are at the elementary level, 3,281 are at the middle school level, 6,035 at the secondary level, and 1,307 work in K-12 settings (S. Wicks, personal communication, February 10, 2016). The remaining professional members work in school district, University, private, or other settings.

Participants in this study are a sample of all ASCA members who are practicing at the elementary, middle, secondary, or K-12 level and are listed in the ASCA membership directory. Although the sample used for this study is comprised of ASCA members, the sample mirrors professional school counselors nationally who are predominately female, White, and between the ages of 25 and 65 (Bruce & Bridgeland, 2012).

According to Dillman, Smyth, and Christian (2014), the following formula can be used to determine the estimated size of the completed sample: $N_s = (N_p)(p)(1 - p)/(N_p - 1)(B/C)^2 + (p)(1 - p)$. In this equation, N_s is the completed sample size needed for the desired level of precision; N_p is the size of the population; p is the proportion of the population expected to choose one of the two response categories; B is the margin of error; and C is the Z score associated with the confidence level (Dillman et al., 2014). Using this equation with a practicing membership population of 15,160, a 50% proportion of response choice, a margin of error of .05, and a Z score of 1.96, a completed sample size of at least 375 cases is needed to be sure the estimate of interest will be within plus or minus five percentage points 95% of the time (Dillman et al., 2014).

Procedure

Prior to conducting the research, a pilot study was conducted to (1) determine the clarity and conciseness of the directions and items on the Demographic Questionnaire, and (2) determine the amount of time it takes to complete the survey (Dillman, et al., 2014; Andrews, Nonnecke, & Preece, 2003). Four practicing school counselors completed the survey. Following survey completion, participants were asked to provide feedback on the clarity and conciseness of the directions and items on the Demographic Questionnaire as well as how much time it took to complete the survey (See Appendix A). All pilot study participants reported that the survey directions were clear and easy to follow. Based on the feedback from the pilot study, the survey is expected to take participants approximately 10 to 15 minutes to complete.

There are limitations to survey research that were considered for this study. The first consideration was sampling error. Sampling error is the result of collecting data

from a subset rather than all members of a population and is part of all sample surveys (Dillman, et al., 2014). Sampling bias was also considered for this study. Sampling bias is systematic sampling error and occurs when some aspect of the sampling creates a bias in the data (Gay, Mills, & Airasian, 2011).

Dillman, et al. (2014) provide suggestions for reducing the aforementioned limitations to survey research, and these suggestions were incorporated into this study. Although sampling error is unavoidable in sample survey research, reduction of sampling error was attempted by obtaining survey responses from a large number of participants. Finally, sampling bias was attempted to be reduced in this study by conducting a pilot study to increase the clarity of survey directions and items for participant comprehension. In addition, using a shorter rather than longer survey, offering incentives to participants, and conducting follow-up requests for participation were used to decrease sampling bias and increase participation rates (Dillman, et al., 2014).

After receiving permission from the Institutional Review Board at the University of North Carolina at Charlotte, SurveyShare, an Internet based survey system, was used for survey dissemination. An initial email with the Introductory Letter (Appendix B) was sent to all practicing school counselors listed in the American School Counseling Association (ASCA) online membership directory explaining the purpose of the study and providing an online link to the survey. After following the link to the online survey, participants were asked to enter an email address before responding to the survey. Collecting an email address through the SurveyShare system for each participant helped prevent the same participant from responding multiple times, tracked participants for reminder emails, and ensured the appropriate participants respond to the survey.

However, a SurveyShare setting was used to disassociate email addresses from individual participant responses. Participants who completed the online survey were also entered into a random drawing using disassociated email addresses to increase participation (Dillman, Smyth, & Christian, 2014).

After following the online link to the surveys, an Informed Consent Form (Appendix C) appeared immediately on the SurveyShare website, stating that participation was voluntary, confidential, and that participants could stop participating in the research study at any time. After viewing the Informed Consent Form and agreeing to participate in the research study, participants were directed to the School Counseling Program Implementation Survey (SCPIS) (Clemens et al., 2010a) (see Appendix D), the School Counselor Knowledge and Skills Survey (SCKSS) (Olsen, Blum, & Cheney, 2016) (see Appendix E), and the Demographic Questionnaire (see Appendix F). The time it took to complete the SCPIS (Clemens et al., 2010a), SCKSS (Olsen, Blum, & Cheney, 2016), and the Demographic Questionnaire was expected to be approximately 10 to 15 minutes. One week after the initial email was sent, a follow up email with the online link to the surveys was sent to all participants who have not completed the surveys (see Appendix G). After three weeks, the link to the surveys was shut down, and all of the data collected was downloaded to the Statistical Package for Social Sciences (SPSS) software.

Introductory Letter

An introductory letter (Appendix B) was sent in the body of the email to all school counselors listed in the American School Counseling Association (ASCA) online membership directory. The letter explained the purpose of the study, described the

sampling method, and asked for participation. Participants were also informed their participation was voluntary and confidential. Finally, a link to the online survey was included at the end of the Introductory Letter.

Informed Consent Form

Prior to completing the surveys, participants reviewed the Informed Consent Form (Appendix C) that was presented on the SurveyShare website link. This form included eligibility criteria, purpose of the research study, estimated time to complete the surveys, and benefits and risks of participating. Participants were again notified that participation was voluntary and confidential, and that they could stop participating at any time. Participants were also notified that by proceeding to complete the online surveys, they were providing informed consent.

Instruments

Data were obtained from self-reported surveys. Participants in this study first completed the School Counseling Program Implementation Survey (SCPIS) (Clemens et al., 2010a), which contains 17 items. Next, participants completed the School Counselor Knowledge and Skills Survey (SKSS), which contains 33 items. Finally, participants completed a 13-item Demographic Questionnaire developed for this study.

School counseling program implementation survey. The School Counseling Program Implementation Survey (SCPIS) (Appendix D) was originally developed by Eisner and Carey (2005) to research ASCA National Model (2012a) implementation and for school counselors to assess their school counseling programs (Clemens, Carey, & Harrington, 2010b). In the original version, 25 items were developed from a literature review focused on determining characteristics of the ASCA National Model (2012a).

The items were reviewed by experienced district-level school counseling coordinators familiar with the ASCA National Model (2012a) and comprehensive school counseling implementation, and all items remained in the 2005 version. Ratings for the 2005 version were 1 for *Not Present*, 2 for *Development in Progress*, 3 for *Partly Implemented*, and 4 for *Fully Implemented*. Internal consistency reliability analysis using responses from 60 school counselors resulted in dropping five items, leaving 20 total survey items. Cronbach's alpha internal consistency reliability estimate was .81.

Clemens et al. (2010b) conducted an exploratory factor analysis of the SCPIS (Eisner & Carey, 2005) using the principal axis factor method and oblique rotation. The sample used for this analysis included 341 school counselors. The Kaiser-Meyer-Olkin measure of sampling adequacy was .89 and the Bartlett's test was significant at $p < .001$ (Clemens et al., 2010b). The exploratory factor analysis results led to the current version of the SCPIS, a 17-item self-report survey using a four-point Likert scale to measure the extent to which a school counselor has implemented the ASCA National Model (2012a) for comprehensive school counseling programs (Clemens et al., 2010a; Clemens et al., 2010b). Items of the SCPIS are divided into three subscales: (1) programmatic orientation (seven items; Cronbach's alpha reliability coefficient .79), (2) software and data (three items; Cronbach's alpha reliability coefficient .78), and (3) school counseling services (seven items; Cronbach's alpha reliability coefficient .81) (Clemens et al., 2010b). Examples of items on each subscale include: *Use a set of clear and measurable learning objectives and establish goals for academics, social/personal skills, and career development* (programmatic orientation), *Use computer software to analyze student data*

(software and data), and *Spend at least 80% of my time in activities that directly benefit students* (school counseling services).

For each item, participants selected one of four responses to indicate the extent to which essential characteristics of the ASCA National Model (2012a) are implemented in their school counseling program. Ratings are 1 for *Not Present*, 2 for *Development in Progress*, 3 for *Partly Implemented*, and 4 for *Fully Implemented*. Because one purpose of this study was to examine how time spent on ASCA aligned activities influences school counselors' knowledge and skills of MTSS, the language of the SCPIS ratings was adapted with the authors permission, so that the frequency with which school counselors participate in ASCA aligned activities could be measured. Adapted ratings to assess frequency of ASCA aligned activities are 1 for *I never do this*, 2 for *I rarely do this*, 3 for *I occasionally do this,* and 4 for *I frequently do this*.

School counselor knowledge and skills survey. To date, researchers have assessed teachers' knowledge and skills of Multi-Tiered Systems of Support (MTSS) using the Teacher Knowledge and Skills Survey (TKSS; Beaudoin, Benner, & Knuth, 2006; Blum & Cheney, 2009; Blum & Cheney, 2012). In the development of the TKSS, Blum & Cheney (2009) included school counselors in the sample. However, the language in the TKSS was not designed specifically for school counselors. Therefore, the TKSS was adapted in collaboration with the authors to develop the School Counselor Knowledge and Skills Survey (SCKSS) (Olsen, Blum, & Cheney, 2016) (Appendix E) to specifically target school counselors.

The School Counselor Knowledge and Skills Survey (SCKSS) for Multi-Tiered Systems of Support (Olsen, Blum, & Cheney, 2016) was adapted from the Teacher

Knowledge and Skills Survey (TKSS) for Positive Behavior Supports (PBS) (Blum & Cheney, 2012). The TKSS is a 33-item self-report survey using a 5-point Likert scale to measure teachers' knowledge and skills related to PBS. The items on the TKSS incorporate evidence-based teacher knowledge, skills and practices that are also aligned with the multi-tiered PBS framework implemented in schools.

Items on the TKSS are divided into five subscales: (1) Specialized Behavior Support and Practices, (2) Targeted Intervention Supports and Practices, (3) School-wide PBS Practices, (4) Individualized Curriculum Supports and Practices, and (5) Positive Classroom Supports and Practices (Blum & Cheney, 2009). Examples of items for each subscale include: *I know what functional behavioral assessments are and how they are used to develop behavior intervention plans for students* (Specialized Behavior Support and Practices); *Approaches for helping students solve social/interpersonal problems* (Targeted Intervention Supports and Practices); *I know our school's policies and programs on the prevention of behavior problems* (School-wide PBS Practices); *Collaborating with the school's assistance team to implement BIPs (Behavior Intervention Plans)* (Individualized Curriculum Supports and Practices); *Methods for reinforcing the use of expectations and social skills* (Positive Classroom Supports and Practices). Items addressing each subscale are spread across the 33 items. For items 1 to 14, participants were asked to rate the items regarding their knowledge on the item using 1 for *none or little*, 2 for *somewhat*, 3 for *moderate*, 4 for *strong*, and 5 for *mastery.* For items 15-33, participants were asked to rate how effectively they use the skills and strategies described in each item using 1 for *none or little*, 2 for *somewhat*, 3 for *moderate*, 4 for *strong*, and 5 for *mastery.*

Blum and Cheney (2009) conducted an analysis to determine the validity and reliability of the TKSS. A confirmatory factor analysis (CFA) was used to evaluate three theoretical models of the TKSS (Blum & Cheney, 2009). Reliability coefficients for the five subscales that make up the TKSS are as follows: .86 for the Specialized Behavior Support and Practices subscale, .87 for the Targeted Intervention Supports and Practices subscale, .86 for the School-wide PBS Practices subscale, .84 for the Individualized Curriculum Supports and Practices subscale, and .82 for the Positive Classroom Supports and Practices subscale (Blum & Cheney, 2009). The total reliability coefficient for all items on the total test score is .96 (Blum & Cheney, 2009).

The SCKSS was adapted from the TKSS in order to be used more effectively with school counselors and to reflect updated terminology. The term *Positive Behavior Supports (PBS)* was changed to *Multi-Tiered Systems of Support (MTSS)* in the title, in the written directions and for individual items. This adaptation reflects the recent use of the term *Multi-Tiered Systems of Support (MTSS)* in the literature to refer to all Multi-Tiered Systems of academic and behavioral support, of which the *Positive Behavior Supports (PBS)* framework is one type (Sugai & Horner, 2009). The term *teacher* was changed to *school counselor* in the title and in the written directions to make the survey more relevant for school counselors who will be responding to the SCKSS. The final adaptation of the TKSS for the version of the SCKSS used for this study involves the adaptation of item 6 from *I know how to access and use our school's counseling programs* to *I know how to provide access and implement our school's counseling programs*. Item 6 was adapted because respondents to the SCKSS are school counselors and therefore respondents would provide access to and implement the school's

counseling programs instead of access and use the programs as a teacher would. No other adaptations of the TKSS were made to develop the version of the SCKSS used for this study.

Demographic questionnaire. A 13 item self-report Demographic Questionnaire (Appendix F) was developed for this study. Items assessing participants' gender, age, ethnicity, experience, size of school, size of student caseload, percentage of students in school eligible for free or reduced price lunch, student diversity, and school regional location were included to identify the population of school counselors who participated in this study. Additional items included on the Demographic Questionnaire assessed the independent variables of school level, school setting, type of MTSS training, and challenges to obtaining the knowledge and skill needed to implement MTSS. The items assessing the aforementioned independent variables, and the responses to these items, were determined as a result of an extensive review of the literature. Results of the literature review indicated that these variables, and the responses used to measure these variables, are most likely to be factors that contribute to school counselors obtaining the knowledge and skills necessary to implement MTSS. All items on the Demographic Questionnaire were presented to participants at the end of the survey (Dillman, Smyth, & Christian, 2014).

Research Design

Survey research is used to determine and report the way things are, and assesses perceptions, attitudes, and practices of a group of people (Gay, Mills, & Airasian, 2011). A non-experimental survey research design using a survey research method was used to examine how (1) time spent on American School Counselor Association (ASCA)

National Model aligned activities, (2) challenges to obtaining knowledge and skills of Multi-Tiered Systems of Support (MTSS) effectively, (3) school level, (4) school setting, and (5) type of MTSS training relate to school counselors' knowledge and skills of MTSS.

Research Questions

The main research question for this study was: What factors relate to school counselors' knowledge and skills of Multi-Tiered Systems of Support (MTSS)? To answer the overall research question, the following sub-research questions were addressed:

1. To what extent do school counselors spend their time on activities aligned with the ASCA National Model for comprehensive school counseling programs (CSCP)?
2. What are school counselors' level of MTSS knowledge and skills?
3. How are time spent on ASCA aligned activities, challenges, school level, school setting, and type of MTSS training related to level of MTSS knowledge and skills?

Hypotheses

This study examined the relationship between time spent on ASCA aligned activities, challenges to obtaining knowledge and skills of MTSS, school level, school setting, type of MTSS training, and school counselors' level of MTSS knowledge and skills. The following hypotheses were tested:

1. Time spent on ASCA aligned activities has a significant direct relationship with knowledge and skills of MTSS such that, more time spent on ASCA aligned activities is related to more knowledge and skills of MTSS (see Figure 1).

2. Challenges to obtaining knowledge and skills of MTSS has a significant direct relationship with knowledge and skills of MTSS such that, fewer challenges to obtaining knowledge and skills of MTSS is related to more knowledge and skills of MTSS (see Figure 1).

3. School level has a significant direct relationship with knowledge and skills of MTSS such that, school counselors in elementary schools have more knowledge and skills of MTSS than school counselors in middle and high schools (see Figure 1).

4. School setting has a significant direct relationship with knowledge and skills of MTSS such that, school counselors in rural, suburban, and urban school settings have significantly different knowledge and skills of MTSS (see Figure 1).

5. Type of MTSS training has a significant direct relationship with knowledge and skills of MTSS such that, higher levels of training are related to more knowledge and skills of MTSS (see Figure 1).

6. Time spent on ASCA aligned activities mediates the relationship between challenges to obtaining knowledge and skills of MTSS, school level, school setting, type of MTSS training, and school counselors' knowledge and skills of MTSS (see Figure 2).

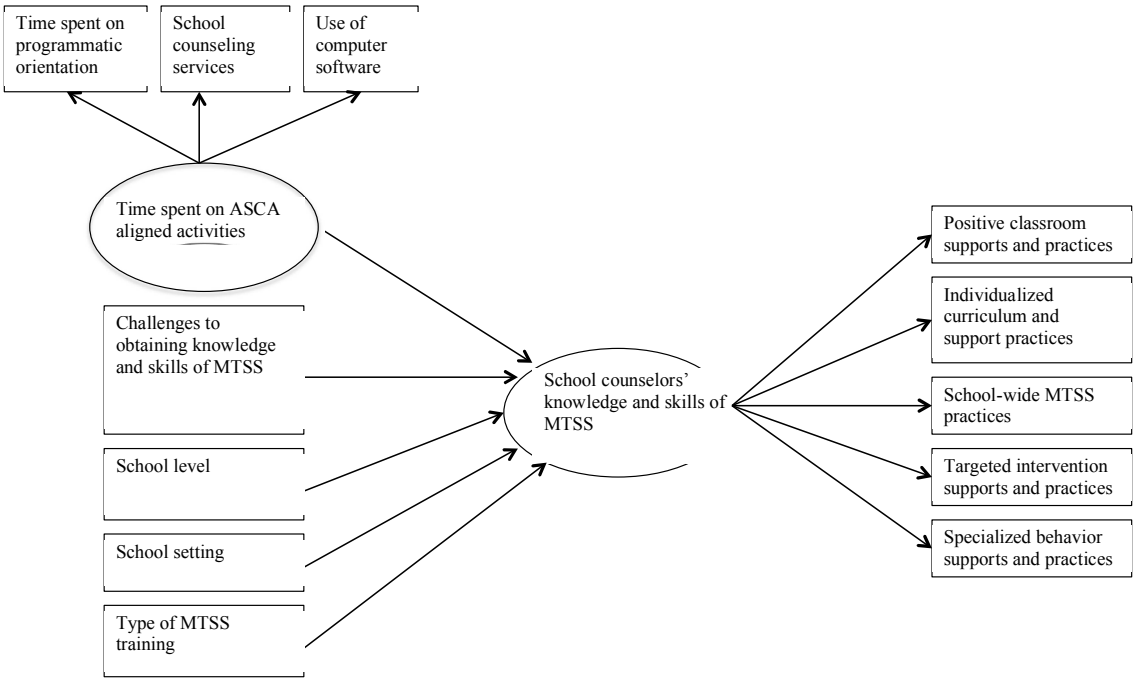

Figure 1. Hypothesized model examining predictors of school counselors' knowledge and skills of MTSS.

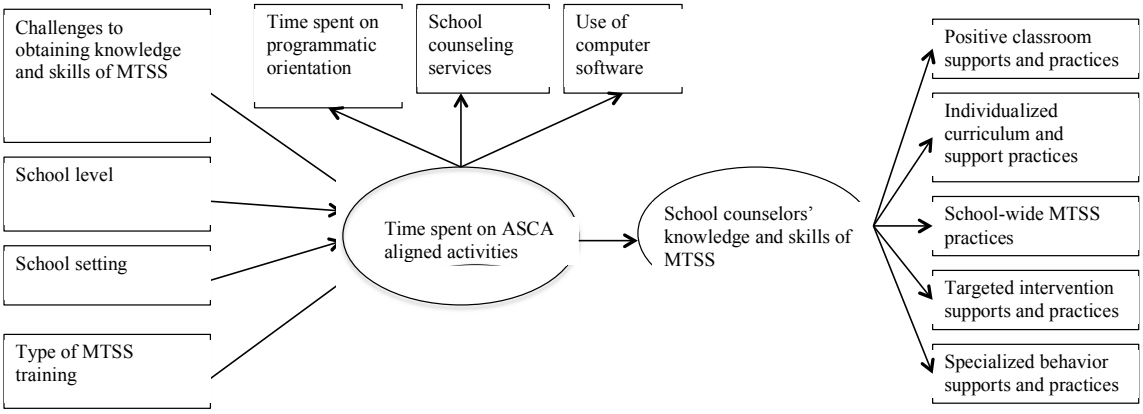

Figure 2. Alternative hypothesized model examining predictors of school counselors' knowledge and skills of MTSS with time spent on ASCA aligned activities as mediating variable.

Data Analysis

Survey data were downloaded from the SurveyShare website into the Statistical Package for the Social Sciences (SPSS) software. SPSS was used to screen the data and compute descriptive statistics. Mplus 7.11 software was used to conduct structural

equation modeling (SEM). This data analysis was used to examine the factors that relate to school counselors knowledge and skills of MTSS.

Data Screening

Prior to running major analysis, the data were screened. The screening process was used to examine outliers, missing values, normality, and multicollinearity. Assumptions related to SEM were also addressed.

Descriptive Statistics

Descriptive statistics were generated to summarize characteristics of participants who took part in this study and the variables related to the study. The following participant information was analyzed to generate descriptive statistics for this study: gender, age, ethnicity, years of experience, size of school, size of student caseload, percentage of students in school eligible for free or reduced price lunch, student diversity, school region, school level, school setting, type of MTSS training, and challenges to obtaining knowledge and skills of MTSS.

Structural Equation Modeling

Structural Equation Modeling (SEM) was used to analyze survey data for this study and determine how the factors time spent on ASCA aligned activities, challenges to obtaining knowledge and skills of MTSS, school level, school setting, and type of MTSS training, relate to school counselors knowledge and skills of MTSS. SEM is a collection of statistical techniques that allow a set of relationships between one or more independent variables and one or more dependent variables to be examined (Tabachnick & Fidell, 2013). In this study, time spent on ASCA aligned activities, challenges to obtaining knowledge and skills of MTSS, school level, school setting, and type of MTSS training

were independent variables; and school counselors knowledge and skills of MTSS was the dependent variable.

SEM analysis consisted of five steps including (1) model specification, (2) model identification, (3) model estimation, (4) model testing, and (5) model modification (Crockett, 2012). Model specification was done prior to data collection and analysis, and involved the development of a research and literature based theoretical model to determine variables of interest and relationships among variables (Crockett, 2012). Model specification was done in two steps. First, a measurement model was specified by identifying observed variables that make up each of the models latent constructs (Crockett, 2012). Second, a structural model was determined by specifying hypothesized relationships among latent variables in the theoretical model (Crockett, 2012). The relationship among variables was illustrated by constructing a path diagram.

The second step in SEM analysis was model identification. Model identification was used to determine if the specified model developed in step one was capable of producing results that can be estimated in SEM analysis (Crockett, 2012). The third step in SEM analysis, model estimation, involved estimating the parameters of the theoretical model to generate a theoretical covariance matrix (Crockett, 2012). Model estimation was computed using an iterative procedure to minimize the difference between the estimated theoretical covariance matrix and observed covariance matrix (Lei & Wu, 2007). Each calculation cycle of the iterative procedure improves the parameter estimates, and this process resulted in final parameter estimates that represent the best fit to the observed covariance matrix (Crockett, 2012).

After the theoretical model was specified, identified, and estimated, the model was tested. In SEM analysis, model testing assesses the fit between the hypothesized theoretical model and the observed data (Mueller & Hancock, 2008). Model testing involved conducting a Confirmatory Factor Analysis (CFA) of the measurement model and analyzing the structural model to determine how closely the theoretical model was supported by the sample data (Crockett, 2012). The final step in SEM analysis was model modification. Model modification was used in an attempt to find a theoretical model that better fit the observed data (Crockett, 2012). Improving model fit was attempted by eliminating nonsignificant parameters from the theoretical model and evaluating the standardized residual matrix (Crockett, 2012). As a result of SEM, a path diagram was generated to illustrate the relationship between the independent variables and the dependent variable.

Summary

The purpose of this chapter was to provide the methodology that was used in this study. The sections in this chapter provided details regarding participants, procedure, and instruments. Additionally, the research design, research questions, and data analysis were described.

CHAPTER IV: RESULTS

The purpose of this research study was to examine factors related to school counselors' knowledge and skills of Multi-Tiered Systems of Support (MTSS). Specifically, this study examined the relationship between time spent on ASCA aligned activities, challenges to obtaining knowledge and skills of MTSS, school level, school setting, type of MTSS training, and school counselors' knowledge and skills of MTSS. The main research question was, what factors relate to school counselors' knowledge and skills of MTSS? Three sub-research questions were also examined. The first sub-research question was, to what extent do school counselors spend their time on activities aligned with the ASCA National Model for comprehensive school counseling programs (CSCP)? The second sub-research question was, what is the level of school counselors' knowledge and skills of MTSS? Finally, the third sub-research question was, how are time spent on ASCA aligned activities, challenges, school level, school setting, and type of MTSS training related to level of MTSS knowledge and skills?

This chapter describes the results of this study. The first section in this chapter provides a description of the participants in this study. The second section describes instrument reliabilities. The third section describes data screening procedures. The fourth section provides descriptive statistics for variables. The fifth section describes results from the structural equation modeling analysis used to examine the main research question. This chapter concludes with a summary of results.

Description of Participants

The sampling frame consisted of 15,106 licensed and currently practicing K-12 school counselors who were members of the American School Counselor Association (ASCA). A total of 4,598 school counselors responded to the survey resulting in a response rate of 30%. After eliminating respondents with incomplete or missing data (*n* = 532), a total number of 4,066 participants were included in the final analysis of this study.

Frequencies and percentages of the demographic variables in this study are reported in Table 1. Demographic data indicated that the majority of participants were female (87%), and between the ages of 31 and 40 (33%) or 41 and 60 (41%). The majority of participants also self-identified their race as Caucasian (84%).

Participants' were predominately licensed or certified as a school counselor for one to three years (34%) or four to eight years (25%). The size of the schools participants reported working in varied; however, the majority of participants worked in schools with 500 to 1,000 students (40%). In addition, 33% worked in schools with less than 500 students and 27% worked in schools with more than 1,000 students. The majority of participants reported student caseloads of 251 to 500 students (54%).

The percentage of students who were eligible for free and reduced price lunch in participant's schools was relatively evenly distributed across participants. However, participants most frequently reported that between 25% to 50% of students in their school were eligible for free or reduced price lunch. The majority of participants considered their school to be racially or ethnically diverse (54%).

Most participants reported working at the high school level (37%), followed by elementary school (30%) and middle school (21%) levels. A small number of participants reported working at K-8 or K-12 grade (11%) levels. This distribution mirrors the number of American School Counselor Association (ASCA) members at each school level (S. Wicks, personal communication, February 10, 2016). In terms of school setting, the majority of participants reported working in suburban school setting (45%), followed by rural (33%) and urban (23%) school settings. Additionally, participants were from varying regions across the country.

Table 1: Total Number and Percentages of Demographic Variables

Variable	Total Number (n = 4,066)	*Percentage
Gender		
Female	3,536	87%
Male	530	13%
Age		
Under 25	51	1%
25-30	821	20%
31-40	1,339	33%
41-60	1,659	41%
Over 60	196	5%
Race		
Caucasian	3,409	84%
African American	279	7%
Asian/Pacific Islander	56	1%
Hispanic/Latino	177	4%
Native American	24	1%
Multi-Racial	80	2%
Other	41	1%

Table 1 (continued)

Variable	Total Number (n = 4,066)	*Percentage
Years Licensed/Certified		
1-3	1,398	34%
4-8	1,033	25%
9-14	778	19%
15-20	517	13%
21-Plus	340	8%
School Size		
Less than 500 students	1,356	33%
500-1000 students	1,608	40%
More than 1000 students	1,102	27%
Student Caseload		
250 students or less	953	23%
251-500 students	2,190	54%
501-1000 students	855	21%
More than 1000 students	68	2%
Students Eligible FRL		
Less than 25%	909	22%
25-50%	1,183	29%
51%-75%	968	24%
More than 75%	1,006	25%
Race/Ethn. Diverse School		
No	1,889	47%
Yes	2,177	54%
School Level		
Elementary School	1,232	30%
Middle/Junior High	869	21%
High School	1,518	37%
K-8	207	5%
K-12	240	6%
School Setting		
Rural	1,332	33%
Suburban	1,808	45%
Urban	926	23%

Table 1 (continued)

Variable	Total Number (n = 4,066)	*Percentage
Region		
East	1,158	29%
South	1,068	26%
Midwest	1,051	26%
West	789	19%

Note. *Percentages may not add up to 100 due to rounding; FRL = free and reduced price lunch.

Reliability of Instruments

This section provides a description of instrument reliabilities. Cronbach's alpha internal consistency measures were uses to estimate the reliability of the School Counseling Program Implementation Survey (SCPIS) and the School Counselor Knowledge and Skills Survey (SCKSS) for MTSS. Cronbach's alpha and number of items for each survey are provided in Table 2. Results indicated that each survey scale has an acceptable level of reliability ranging from .744 to .920.

Table 2: Cronbach's Alpha and Number of Items for Survey Scales

Instrument	Cronbach's α	Number of Items
SCPIS Programmatic Orientation	.797	7
SCPIS Use of Computer Software	.784	3
SCPIS School Counseling Services	.744	7
SCKSS Specialized Behavior	.895	8
SCKSS Targeted Intervention	.861	8

Table 2 (continued)

SCKSS Schoolwide MTSS	.920	7
SCKSS Individualized Curriculum	.858	5
SCKSS Positive Classroom	.868	5

Note. SCPIS = School Counseling Program Implementation Survey; SCKSS = School Counselor Knowledge and Skills Survey.

Data Screening

Prior to running major analysis, the data were screened using the Statistical Package for the Social Sciences (SPSS) software. The screening process was used to examine outliers, missing values, normality, and multicollinearity. Assumptions related to SEM were also addressed.

Outliers

An analysis of outlier data was conducted using box plots and Mahalanobis's distance. Univariate outliers were examined and determined to be acceptable given the expected diversity in school counselors' knowledge and skills of MTSS. Therefore, no univariate outliers were removed. Mahalanobis's distance was also computed and multivariate outliers were examined. The multivariate outliers were determined to be acceptable given the diversity of experiences, knowledge, and skills of participants, and no multivariate outliers were removed.

Missing Values

The online SurveyShare program calculated participants who started the online survey but did not complete the survey. There were a total of 1,314 participants who were identified as having incomplete responses. These incomplete responses were kept separate from the completed data set (n = 4,598). A Missing Values Analysis was

conducted on the completed data set using SPSS software. The analysis indicated 4,137 out of 299,331 values (1.36%) were missing, including 44 participants who did not complete at least one of the three surveys. Missing values were excluded listwise during analysis so that any case with a missing value was excluded from the analysis. After excluding missing values, 4,066 cases remained for final analysis.

Normality

The data was assessed for normality using kurtosis and skewness statistics and results indicated that the assumption of normality was violated. The computer software (cs) variable, which is measured by the SCPIS, was negatively skewed (-1.27). The assumption for normality for all other variables were met.

Multicollinearity

Multicollinearity refers to variables that are very highly correlated (Tabachnick & Fidell, 2013). To assess the data for multicollinearity, bivariate correlations and variance inflation factors were examined. There was no evidence of multicollinearity.

Descriptive Statistics

Descriptive statistics were generated to summarize the variables used in this study (see Table 3) and to examine two sub-research questions. The first sub-research question was, to what extent do school counselors spend their time on activities aligned with the ASCA National Model for comprehensive school counseling programs (CSCP)? The second sub-research question was, what is the level of school counselors' knowledge and skills of MTSS? Participants (n = 4,066) completed items on the School Counseling Program Implementation Survey (SCPIS) to determine time spent on ASCA aligned activities. The School Counseling Program Implementation Survey (SCPIS) contains

three scales. Each survey item was rated on a four-point Likert scale that included 1 for *I never do this*, 2 for *I rarely do this*, 3 for *I occasionally do this,* and 4 for *I frequently do this*. The programmatic orientation scale is made up of seven items and has a total possible scale score ranging from seven to 28. A higher programmatic orientation scale score indicates more time spent on program orientated aspects of the American School Counselors (ASCA) National Model program than lower scores. School counselors in this study reported occasionally participating in programmatic orientation activities (M = 21.00, SD = 4.23). The software and data scale is made up of three items and has a total possible scale score ranging from three to 12. A higher software and data scale score indicates more frequent use of computer software and data to implement the American School Counselors (ASCA) National Model program than lower scores. School counselors in this study reported a frequency between occasionally and frequently (M = 10.20, SD = 2.01) for using computer software and data. The third and final scale, school counseling services, is made up of seven items and has a total possible scale score ranging from seven to 28. A higher school counseling services scale score indicates more time spent on school counseling services aligned with the American School Counselors (ASCA) National Model program than lower scores. School counselors in this study reported a frequency between occasionally and frequently (M = 23.42, SD = 3.24) for providing school counseling services.

Participants (n = 4,066) also completed the School Counselor Knowledge and Skills Survey (SCKSS) to determine knowledge and skills of MTSS. The School SCKSS contains five scales. Each survey item was rated on a five-point Likert scale. For items 1 to 14, participants were asked to rate the items regarding their knowledge on the item

using 1 for *none or little*, 2 for *somewhat*, 3 for *moderate*, 4 for *strong*, and 5 for *mastery.* For items 15-33, participants were asked to rate how effectively they use the skills and strategies described in each item using 1 for *none or little*, 2 for *somewhat*, 3 for *moderate*, 4 for *strong*, and 5 for *mastery.*

The specialized behavior support and practices scale is made up of eight items and has a total possible scale score ranging from eight to 40. A higher specialized behavior support scale score indicates more knowledge and skills of specialized behavior supports. School counselors in this study rated their knowledge and skills of specialized behavior supports and practices between moderate and strong (M = 28.46, SD = 5.95). The second scale measured targeted intervention supports and practices. This scale is made up of eight items and has a total possible scale score ranging from eight to 40. A higher targeted intervention supports and practices scale score indicates more knowledge and skills of targeted intervention supports and practices. School counselors in this study rated their knowledge and skills of targeted intervention supports and practices between moderate and strong (M = 29.00, SD = 5.57).

The third scale, school-wide MTSS practices, is made up of seven items and has a total possible scale score ranging from seven to 35. A higher school-wide MTSS practices scale score indicates more knowledge and skills of school-wide MTSS practices. School counselors in this study rated their knowledge and skills of school-wide MTSS practices between moderate and strong (M = 24.21, SD = 6.46). The fourth scale measured individualized curriculum supports and practices. This scale is made up of five items and has a total possible scale score ranging from five to 25. A higher individualized curriculum supports and practices scale score indicates more knowledge

and skills of individualized curriculum supports and practices. School counselors in this study rated their knowledge and skills of individualized curriculum supports and practices between moderate and strong (M = 16.63, SD = 4.30). The fifth and final scale, the positive classroom supports and practices scale, is made up of five items and has a total possible scale score ranging from five to 25. A higher positive classroom supports and practices scale score indicates more knowledge and skills of positive classroom supports and practices scale. School counselors in this study rated their knowledge and skills of positive classroom supports and practices between moderate and strong (M = 17.83, SD = 3.90).

Using the scale 1 = *no training*, 2 = *low training*, 3 = *medium training*, and 4 = *high training*, school counselors in this study reported the extent of their MTSS training to be between low (33%) and medium (38%) (M = 2.55, SD = .92). School counselors were also asked to rate the challenges they face to obtaining knowledge and skills of MTSS using the scale 1 = *none*, 2 = *some*, and 3 = *a lot.* School counselors reported needing a lot more time (n = 2,307, M = 2.50, SD = .62), needing some more training (n = 2,299, M = 2.22, SD = .62), and needing a lot more staff buy-in (n = 2,039, M = 2.41, SD = .65), as the most frequent challenges to obtaining knowledge and skills of MTSS.

Table 3: Descriptive Statistics for Study Variables

Variable	*M*	*SD*	Range	Minimum	Maximum
SCPIS					
Programmatic Orientation	21.00	4.23	21	7	28
Software and Data	10.20	2.01	11	1	12
School Counseling Services	23.42	3.24	21	7	28

Table 3 (continued)

Variable	*M*	*SD*	Range	Minimum	Maximum
SCKSS					
Specialized Behavior	28.46	5.95	34	6	40
Targeted Intervention	29.00	5.57	32	8	40
School-Wide MTSS	24.21	6.46	33	2	35
Individualized Curriculum	16.63	4.30	23	2	25
Positive Classroom	17.83	3.90	21	4	25
Challenges					
Need More Training	2.22	.62	2	1	3
Need More Admin. Support	2.12	.75	2	1	3
Need More Time	2.50	.62	2	1	3
Need More Staff Buy-In	2.41	.65	2	1	3
Type of MTSS training	2.55	.92	3	1	4

Note. SCPIS = School Counseling Program Implementation Survey; SCKSS = School Counselor Knowledge and Skills Survey.

Structural Equation Modeling

This section provides a description of the results from the structural equation modeling (SEM) analysis used to examine the main research question, what factors relate to school counselors' knowledge and skills of MTSS? SEM analysis was also used to examine the third sub-research question, how are time spent on ASCA aligned activities, challenges, school level, school setting, and type of MTSS training related to level of MTSS knowledge and skills? In addition, SEM analysis was used to test the alternative model presented in chapter three. SEM analysis consisted of five steps including (1) model specification, (2) model identification, (3) model estimation, (4) model testing, and (5) model modification (Crockett, 2012). SEM analysis was conducted using Mplus 7.11 software.

Model Specification

The latent variables in the study included time spent on ASCA aligned activities (*time*) and school counselors knowledge and skills of MTSS (*know*). Time spent on ASCA aligned activities is measured by three observed variables including (1) time spent on programmatic orientation (*po*), (2) use of computer software (*cs*), and (3) time spent on school counseling services (*ser*). School counselors knowledge and skills of MTSS is measured by five observed variables including (1) specialized behavior supports and practices (*sb*), (2) targeted intervention supports and practices (*ti*), (3) school-wide MTSS practices (*sw*), (4) individualized curriculum and support practices (*ic*), and (5) positive classroom supports and practices (*pc*). For the purposes of data analysis, elementary school is referred to as primary, middle and high school are referred to as secondary, and K-8 and K-12 are referred to as other. The observed variables in the study included rural school setting (*rur*), suburban school setting (*sub*), urban school setting (urb), primary grade levels (*prim*), K-8 and K-12 grade levels (*othe*), secondary grade levels (*sec*), MTSS training (*trai*), challenges related to training (*chtr*), challenges related to administrative support (*chad*), challenges related to time (*ti*), and challenges related to staff buy-in (*chbu*). A correlation matrix for all variables used in the study is reported in Appendix H.

Prior to testing the structural model, the measurement model was tested using Confirmatory Factor Analysis (CFA) to assess the relationship between the latent variables time spent on ASCA aligned activities, school counselors knowledge and skills of MTSS, and their corresponding observed variables. The results of the CFA indicate that the measurement model was an acceptable fit, $X^2 = 239.22$, $df = 19$, $p = .000$,

RMSEA = .05 (90% CI = .05 - .06), CFI = .99, SRMR = .02. The correlation between the two latent variables was .89 (SE = .03). The measurement model was an acceptable fit considering that chi-square values are often significant with large sample sizes, the RMSEA value was below .06, the CFI value was greater than .95, and the SRMR below .08 (Tabachnick & Fidell, 2013). After the measurement model was tested, the structural model was specified. This study hypothesized a direct relationship between the independent variables time spent on ASCA aligned activities, school setting, school level, MTSS training, challenges to obtaining MTSS knowledge and skills, and the dependent variable knowledge and skills of MTSS.

Model Identification

For a model to be identified, it must be theoretically possible to compute a unique estimate for each parameter (Crockett, 2012). For this study, the *t* rule was used to determine whether the structural model had more known pieces of information than unknown pieces of information in order to find unique solutions (Crockett, 2012). The number of known pieces of information was determined using the equation $p(p + 1)/2$, where p is equal to the number of observed variables used in the study. The number of unknown pieces of information was determined by counting the number of free parameters to be estimated in the structural model. Using *t* rule calculations, it was determined the structural model for this study was overidentified. An overidentified model is considered an identified model (Crockett, 2012).

Model Estimation

Maximum Likelihood (ML) is the most widely used type of estimation and was used for this study (Crockett, 2012). ML is an iterative procedure that minimizes the

differences between the estimated theoretical covariance matrix and the observed covariance matrix that is computed using the collected data. The model estimation for this study was computed in the Mplus 7.11 software.

Model Testing

The first theoretical model was tested and was determined to be a moderate fit to the data, $X^2 = 1664.93$, $df = 82$, $p = .000$. In SEM, the goal is for chi-square (X^2) to not be significant, however, chi-square values are often significant with large sample sizes such as in this study (Tabachnick & Fidell, 2013). Therefore, additional fit indices were reviewed to interpret the results. The fit indices, RMSEA = .07 (90% CI = .07 - .07), CFI = .93, and SRMR = .08, indicated the first theoretical model was a moderate fit to the data. Addition results describing the relationship between variables are reported in Table 4. Multiple paths between variables were statistically significant. Significant results indicate that school counselors who spent more time on ASCA aligned activities had more knowledge and skills of MTSS. In addition, secondary school counselors working with middle/junior high and high school students had less knowledge and skills of MTSS compared to school counselors working with elementary students.

Table 4: Model Results

Variable	Unstandardized Estimate	Standard Error	Standardized Estimate	Standard Error
Time				
Po	1.00**	.00	.81**	.01
Cs	.29**	.01	.49**	.01
Ser	.64**	.02	.67**	.01

Table 4 (continued)

Variable	Unstandardized Estimate	Standard Error	Standardized Estimate	Standard Error
Know				
Sb	1.00**	.00	.92**	.00
Ti	.92**	.01	.90**	.00
Sw	.95**	.01	.80**	.01
Ic	.65**	.01	.83**	.01
Pc	.61**	.01	.85**	.01
Know				
Time	.68**	.03	.44**	.02
Rur	-.13	.17	-.01	.02
Urb	-.30	.19	-.02	.02
Othe	-.06	.26	.00	.02
Sec	-.70**	.17	-.07**	.02
Trai	1.24**	.10	.22**	.02
Chtr	-1.28**	.16	-.15**	.02
Chad	-.18	.12	-.03	.02
Chti	.21	.14	.03	.02
Chbu	-.28*	.14	-.04*	.02

Note. Structural model. $X^2 = 1664.93$, $df = 82$, $p = .000$, RMSEA = .07 (90% CI = .07 - .07), CFI = .93, and SRMR = .08. time = time spent on ASCA aligned activities; know = school counselors knowledge and skills of MTSS; po = time spent on programmatic orientation; cs = use of computer software; ser = time spent on school counseling
Note (continued). services; sb = specialized behavior supports and practices; ti = targeted intervention supports and practices; sw = school-wide MTSS practices; ic = individualized curriculum and support practices; pc = positive classroom supports and practices; rur = rural; urb = urban; othe = K-8 and K-12 grades; sec = secondary grades; trai = MTSS training; chtr = challenge training; chad = challenge administrator support; chti = challenge time; chbu = challenge staff buy-in.
*$p < .05$;
**$p < .001$

School counselors who reported high training also had more knowledge and skills of MTSS. In terms of challenges to obtaining knowledge and skills of MTSS, school counselors who reported more challenges with getting training and more challenges with staff buy-in had less knowledge and skills of MTSS. School counselors working in rural

and urban settings did not differ in knowledge and skills of MTSS compared to school counselors working in suburban settings. School counselors working with K-8 and K-12 level students did not differ in knowledge and skills of MTSS compared to school counselors working with primary grade levels. Finally, challenges to obtaining knowledge and skills of MTSS related to administrative support and time were not significantly related to school counselors' knowledge and skills of MTSS.

In SEM analysis, it is common for alternative structural models to be tested to determine a model that best fits the sample data (Crockett, 2012). Therefore, the alternative model was also tested. In the alternative model, the time spent on ASCA aligned activities variable is a mediating variable between the school setting, school level, training, and challenges variables and knowledge and skills of MTSS. The alternative model was also determined to be a moderate fit to the data, $X^2 = 1405.56$, $df = 82$, $p = .000$ (RMSEA = .06 [90% CI = .06 - .07]; CFI = .94; SRMR = .05). Results of the alternative model test indicate a mediating effect between school setting, school level, MTSS training, challenges, and knowledge and skills of MTSS.

Additional results describing the relationship between variables are reported in Table 5. Multiple paths between variables were statistically significant. Significant results indicate that time spent on ASCA aligned activities mediates the relationship between rural school settings, secondary school level, MTSS training, challenges related

Table 5: Alternative Model Results

Variable	Unstandardized Estimate	Standard Error	Standardized Estimate	Standard Error
Time				
Po	1.00**	.00	.76**	.01
Cs	.30**	.01	.48**	.02
Ser	.70**	.02	.69**	.01
Know				
Sb	1.00**	.00	.93**	.00
Ti	.92**	.01	.91**	.00
Sw	.94**	.01	.81**	.01
Ic	.65**	.01	.84**	.01
Pc	.61**	.01	.86**	.01
Know				
Time	1.04**	.04	.60**	.01
Time				
Rur	-.26*	.12	-.04*	.02
Urb	-.02	.14	.00	.02
Othe	.03	.19	.00	.02
Sec	.32*	.12	.05*	.02
Trai	1.17**	.07	.34**	.02
Chtr	-.30*	.11	-06*	.02
Chad	-.70**	.08	-.16**	.02
Chti	-.45**	.10	-.09**	.02
Chbu	-.25*	.10	-.05*	.02

Note. Structural model. $X^2 = 1405.56$, $df = 82$, $p = .000$; RMSEA = .06 (90% CI = .06 - .07); CFI = .94; SRMR = .05. time = time spent on ASCA aligned activities; know = school counselors knowledge and skills of MTSS; po = time spent on programmatic orientation; cs = use of computer software; ser = time spent on school counseling
Note (continued). services; sb = specialized behavior supports and practices; ti = targeted intervention supports and practices; sw = school-wide MTSS practices; ic = individualized curriculum and support practices; pc = positive classroom supports and practices; rur = rural; urb = urban; othe = K-8 and K-12 grades; sec = secondary grades; trai = MTSS training; chtr = challenge training; chad = challenge administrator support; chti = challenge time; chbu = challenge staff buy-in.
*$p < .05$;
**$p < .001$

to training, challenges related to administrative support, challenges related to time, challenges related to staff buy-in, and knowledge and skills of MTSS. Rural school setting had an indirect effect on knowledge and skills of MTSS. Compared to suburban school settings, rural school settings predicted less time spent on ASCA aligned activities, which was related to more knowledge and skills of MTSS. In addition, secondary grade level had an indirect effect on knowledge and skills of MTSS. Compared to elementary grade levels, secondary grade levels predicted more time spent on ASCA aligned activities, which was related to more knowledge and skills of MTSS. MTSS training also had an indirect effect on knowledge and skills of MTSS. More MTSS training predicted more time spent on ASCA aligned activities, which was related to more knowledge and skills of MTSS. Finally, challenges had an indirect on knowledge and skills of MTSS. More challenges related to training, administrative support, time, and staff buy-in predicted less time spent on ASCA aligned activities, which was related to more knowledge and skills of MTSS.

Model Modification

The first theoretical model was tested and determined to be a moderate fit according to fit indices. Therefore, an iterative process was used to remove nonsignificant variables from the model to improve the fit to the data. Nonsignificant variables were removed in order of least importance based on theory, literature, and research. Results of the iterative modification process are reported in Table 6. The modification process was used to determine a better fitting model in terms of fit indices and theoretical meaning. The modification leading to the best fit for the first theoretical model was a result of removing the challenges related to administrative support and time

in model seven of the iterative modification process (Figure 3). All paths in the modified model were statistically significant except for the paths between the rural school setting variable and the knowledge and skills of MTSS variable; between the urban school setting variable and the knowledge and skills of MTSS variable; and between the other grade level variable and the knowledge and skills of MTSS variable.

Table 6: First Model Iterative Modification Process with Fit Indices

		X^2	Df	P	RMSEA	CFI	SRMR
OM	*NA	1664.93	82	.000	0.07	0.93	0.08
M1	*Othe	1619.01	75	.000	0.07	0.93	0.08
M2	*Rur	1634.48	75	.000	0.07	0.93	0.08
M3	*Urb	1647.32	75	.000	0.07	0.93	0.08
M4	*Chad	1476.59	75	.000	0.07	0.94	0.07
M5	*Chti	1621.38	75	.000	0.07	0.93	0.08
M6	*Rur/Urb	1617.34	68	.000	0.08	0.93	0.09
M7	*Chad/Chti	1421.69	68	.000	0.07	0.94	0.07
M8	*Rur/Urb/Othe	1573.38	61	.000	0.08	0.93	0.09
M9	*Chad/Chti/Othe	1375.18	61	.000	0.07	0.94	0.08
M10	*Rur/Urb/Oth/Chad/Chti	1324.80	47	.000	0.08	0.94	0.09

Note. OM = original model; M = model; * = variables removed for modification; othe = K-8 and K-12 grades; rur = rural; urb = urban; chad = challenges administrative support; chti = challenge time; X^2 = chi-squared; df = degrees of freedom; p = *p* value; RMSEA = root mean square error of approximation; CFI = comparative fit index; SRMR = standardized root mean square residual.

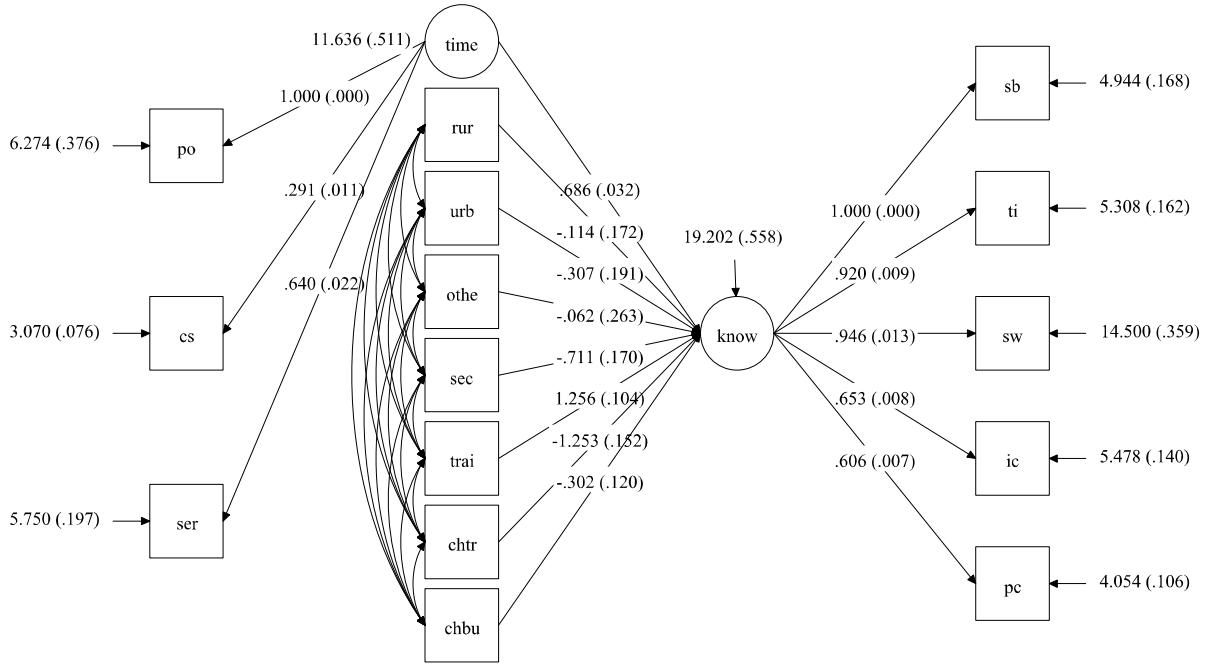

Figure 3: First modified model. $X^2 = 1421.69$, $df = 68$, $p = .000$, RMSEA = .07, CFI = .94, SRMR = .07. Latent variables: time = time spent on ASCA aligned activities; know = school counselors knowledge and skills of MTSS; Observed variables: po = time spent on programmatic orientation; cs = use of computer software; ser = time spent on school counseling services; sb = specialized behavior supports and practices; ti = targeted intervention supports and practices; sw = school-wide MTSS practices; ic = individualized curriculum and support practices; pc = positive classroom supports and practices; rur = rural; urb = urban; sec = secondary grades; trai = MTSS training; chtr = challenge training; chbu = challenge staff buy-in.

Because the first theoretical was tested and determined to be a moderate fit to the data, an alternative model was also tested to determine a better fitting model to the data (Lei & Wu, 2007). In addition, the alternative model was developed and tested because of the growing theoretical support for aligning CSCPs via the ASCA National Model (2012a) and MTSS, and the literature indicating that time spent on ASCA aligned activities may mediate school counselors' involvement in, and knowledge and skills of MTSS (Betters-Bubon & Donohue, 2016; Curtis et al., 2010; Goodman-Scott et al., 2015; Ockerman et al., 2012;Sink, 2011). The alternative model was determined to be a

moderate fit to the data according to the fit indices. Therefore, an iterative process was used to remove nonsignificant variables from the model to improve the fit to the data. Nonsignificant variables were removed in order of least importance based on theory, literature, and research.

Results of the iterative modification process for the alternative model are reported in Table 7. The modification process was used to determine a better fitting model in terms of fit indices and theoretical meaning. The modification leading to the best fit for the alternative model was a result of removing the other grade levels and urban school setting variables in model three of the iterative modification process (Figure 4). All paths in the modified model were statistically significant. Test results for the first theoretical model and the alternative model indicate both models were moderate fits to the sample data, however, results indicated that the alternative model was a better fitting model in terms of theoretical meaning and statistical fit. In addition, results of the alternative model address the third sub-research question indicating time spent on ASCA aligned activities is directly related to school counselors knowledge and skills of MTSS and mediates the relationship between other factors and knowledge and skills of MTSS.

Table 7: Alternative Model Iterative Modification Process with Fit Indices

		X^2	Df	P	RMSEA	CFI	SRMR
OM	*NA	1405.56	82	.000	0.06	0.94	0.05
M1	*Othe	1359.61	75	.000	0.07	0.94	0.05
M2	*Urb	1385.51	75	.000	0.07	0.94	0.05

Table 7 (continued)

		X^2	Df	P	RMSEA	CFI	SRMR
M3	*Othe/Urb	1341.04	68	.000	0.07	0.95	0.06

Note. OM = original model; M = model; * = variables removed for modification; othe = K-8 and K-12 grades; urb = urban; X^2 = chi-squared; df = degrees of freedom; p = *p* value; RMSEA = root mean square error of approximation; CFI = comparative fit index; SRMR = standardized root mean square residual.

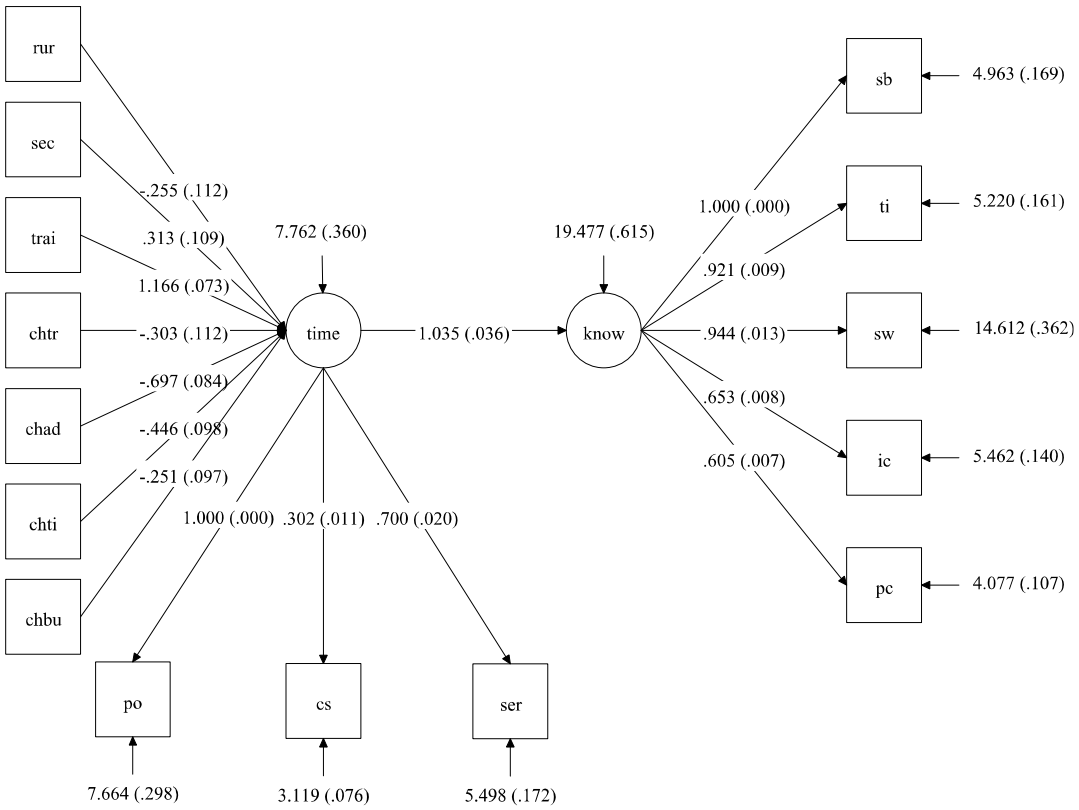

Figure 4: Alternative modified model. X^2 = 1341.04, *df* = 68, *p* = .000, RMSEA = .07, CFI = .95, SRMR = .06. Mediating latent variable: time = time spent on ASCA aligned activities; Latent variable: know = school counselors knowledge and skills of MTSS; Observed variables: po = time spent on programmatic orientation; cs = use of computer software; ser = time spent on school counseling services; sb = specialized behavior supports and practices; ti = targeted intervention supports and practices; sw = school-wide MTSS practices; ic = individualized curriculum and support practices; pc = positive classroom supports and practices; rur = rural; urb = urban; sec = secondary grades; trai = MTSS training; chtr = challenge training; chbu = challenge staff buy-in.

Summary

The purpose of this research study was to examine the relationship between time spent on ASCA aligned activities, challenges to obtaining knowledge and skills of MTSS, school level, school setting, type of MTSS training, and school counselors' knowledge and skills of MTSS. This chapter describes the results of this study. The first section in this chapter provided a description of the participants in this study. The second section described instrument reliabilities. Finally, the third section described the results from the structural equation modeling analysis used to examine the main research question.

Results indicate that while the first theoretical model and the alternative model were both moderate fits to the sample data, the alternative model was determined to be a better theoretical and statistical fit. In the alterative model, the paths between rural school setting, secondary school level, MTSS training, challenges related to training, challenges related to administrative support, challenges related to time, challenges related to staff buy-in, and time spent on ASCA aligned activities were statistically significant. In addition, the path between the mediating variable time spent on ASCA aligned activities and the dependent variable knowledge and skills of MTSS was statistically significant. Overall, these statistically significant paths indicate that rural school setting, secondary school level, MTSS training, challenges related to training, challenges related to administrative support, challenges related to time, and challenges related to staff buy-in were indirectly related to school counselors knowledge and skills of MTSS. In addition, time spent on ASCA aligned activities was directly related to school counselors' knowledge and skills of MTSS.

CHAPTER V: DISCUSSION

This research study examined the relationship between time spent on ASCA aligned activities, challenges to obtaining knowledge and skills of MTSS, school level, school setting, type of MTSS training, and school counselors' knowledge and skills of MTSS. The results of this research study are discussed in this chapter. The sections of this chapter include an overview, discussion of the results of the study, contributions and limitations of this research study, implications of the findings, recommendations for future research, and concluding remarks.

Overview

Students in K-12 schools have diverse academic and behavioral needs and effective, efficient, and evidence-based practices are needed to meet these needs (Lopez & Bursztyn, 2013; Vincent, Randall, Cartlege, Tobin, & Swain-Bradway, 2011). School counselors are also called to align CSCPs with Multi-Tiered Systems of Support (MTSS) to expand the reach and impact their programs have on all students, particularly students of underserved and underperforming populations (ASCA, 2014c; ASCA, 2015; Gysbers, 2004; Janson, Stone, & Clark, 2009; Martin, 2002; Paisley, 2001). CSCPs via the ASCA National Model (2012a) and the MTSS framework share complimentary core features and practices that include a continuum of evidence-based interventions, leadership for implementation and coordination, continuous use of data and assessment, and advocacy for equity. Although CSCPs via the ASCA National Model (2012a) and MTSS are

widely implemented across the nation, little is known about the alignment of these frameworks. To date, a small but growing amount of literature describes school counselors' role in MTSS and illustrates examples of school counselors' effective involvement in MTSS implementation (Betters-Bubon & Donohue, 2016; Cavanaugh & Swan, 2015; Goodman-Scott, Betters-Boubon, & Donohue, 2015). However, there is a lack of research that directly examines school counselors' knowledge and skills of MTSS. Therefore, this research study aimed to establish an empirical understanding of school counselors' knowledge and skills of MTSS.

The factors that relate to school counselors knowledge and skills of MTSS were examined. After thoroughly reviewing the literature, an examination of the relationship between time spent on ASCA aligned activities, challenges to obtaining knowledge and skills of MTSS, school level, school setting, type of MTSS training, and school counselors' knowledge and skills of MTSS was determined to be appropriate. SEM analysis was used to determine how each factor related to school counselors knowledge and skills of MTSS.

Discussion of Results

Discussion of Demographic Data

An examination of the demographic data indicated a lack of diversity regarding the practicing school counselors who participated in the survey. There was a lack of variability within the sample in that the participants were predominately female, between the ages of 31 and 60, and White. The results of this study confirm Bruce and Bridgeland's (2012) findings that professional school counselors nationally are predominately female, between the ages of 25 and 65, and White. In addition, the

majority of school counselors who responded to the survey had one to eight years of school counseling experience. This finding suggests that school counselors in the early part of their career may be more likely to participate in research related to the perceptions and practices of school counselors. In addition, the results of this research reflect the perceptions of school counselors in the earlier rather than later part of their career.

Discussion of Descriptive Data

The degree to which school counselors spend time on ASCA aligned activities has been widely discussed in the literature (Burnham & Jackson, 2000; Scarborough & Culbreth, 2008). The results of this study mirror extant literature in that school counselors reported spending varying amounts of time on ASCA aligned activities (Johnson, Rochkind, & Ott, 2010; Studer et al., 2011). School counselors reported occasionally spending time on programmatic orientation activities, which comprise the foundation (e.g., writing a mission statement) and management (e.g., program assessment) components of the ASCA National Model (2012a) and serve as the framework from which services for students are provided. School counselors rated the frequency of computer software and data use between occasionally and frequently. This finding is encouraging given the emphasis in the profession on data-based decision-making and using of data to drive school counseling programs (ASCA, 2012a; Holcomb-McCoy et al., 2009; Kolodinsky et al., 2009). According to the ASCA National Model (2012a), it is recommended that school counselors spend 80% or more of their time providing direct services to students. Therefore, it was expected that school counselors would report frequently providing school counseling services. School counselors in this study rated the frequency of providing school counseling services (e.g., spending at least

80% of time in activities that directly benefit students) between occasionally and frequently. This finding indicates that school counselors in this study spend more time on providing school counseling services and less time on programmatic oriented activities. Overall, the findings regarding how school counselors spend their time indicate efforts to align school counseling activities with the ASCA National Model (2012a). However, the results also reiterate the continued challenge for school counselors to spend more time directly impacting students and less time on activities not aligned with the ASCA National Model (2012a).

School counselors are called to align school counseling programs with MTSS (ASCA, 2012b, IV-A-8), and a growing number of researchers have introduced frameworks to guide school counselors in this alignment (Betters-Bubon & Donohue, 2016; Goodman et al., 2015; Ockerman et al., 2012). In addition, school counselors involvement in MTSS implementation has been described in the literature Cressey et al, 2014; Curtis et al., 2010). However, to date, the extent of school counselors' knowledge and skills of MTSS had not been assessed. In this study, school counselors rated their knowledge of skills of MTSS between moderate and strong on each of the indicators used (i.e., specialized behavior supports and practices, targeted intervention supports and practices, school-wide MTSS practices, individualized curriculum supports and practices, and positive classroom supports and practices). Given the growing amount of literature focused on school counseling and MTSS integration, these results are encouraging and add to research on school counselors involvement in MTSS.

In terms of MTSS training, it is well established that effective training is comprehensive in nature, occurs over time, and includes practical application of

knowledge and skills (Andreou et al., 2015; Fabiano et al., 2013; Lohrmann et al., 2013). Documentation of how school counselors are trained in MTSS and the impact of training is scarce. However, initial research related to school counselors and MTSS training shows promising results in terms of school counselors beliefs in the effectiveness of MTSS (Ockerman et al., 2015), school counselors enhanced capacity to implement CSCPs (Betters-Bubon & Donohue, 2016), and the benefits of school counselors taking leadership roles in MTSS implementation (Cavanaugh & Swan, 2015). In this study, school counselors reported receiving a medium level of training (i.e., in-depth training, applied content knowledge, multiple trainings or presentations, have been trained and have started implementing or been implementing less than six months). This finding is somewhat surprising given the relatively little evidence in the literature that school counselors receive training in MTSS. However, this result may speak to the widespread implementation of MTSS, and school counselors' growing involvement in MTSS as buildings, districts, and state level implementation increases.

Challenges to obtaining the knowledge and skills needed to implement CSCP and MTSS have been widely discussed in the literature (Bambara et al., 2012; Chitiyo & Wheeler, 2009; Dulaney et al., 2013; Harlacher & Siler, 2011; Lapan et al., 2012; Lohrmann et al., 2013; Marrs & Little, 2014; Moyer, 2011; Pyne, 2011; Studer et al., 2011). This study adds to this literature by focusing specifically on the challenges school counselors face to obtaining knowledge and skills of MTSS. Consistent with other research (Dulaney et al., 2013; Kincaid et al., 2007; Sansosti et al., 2011; Sansosti et al., 2010), school counselors in this study reported multiple challenges to obtaining knowledge and skills of MTSS. Needing more time, more training, and more staff buy-in

were the most frequently rated challenges among school counselors in this study. These findings indicate that participants face multiple challenges to obtaining knowledge and skills of MTSS. In addition, these findings may be beneficial for stakeholders interested in addressing the challenges school counselors face to obtaining knowledge and skills of MTSS.

Discussion of Structural Equation Modeling Analysis

Structural equation modeling (SEM) was used to analyze survey data from K-12 school counselors who are members of ASCA. The purpose of this analysis was to examine the factors that relate to school counselors knowledge and skills of MTSS. Several factors that significantly relate to school counselors knowledge and skills of MTSS were revealed and each factor examined in this study is discussed below.

Time spent on ASCA aligned activities. There is currently no research examining how school counselors' time spent on ASCA aligned activities relates to school counselors knowledge and skills of MTSS. However, researchers describing school counselors' involvement in MTSS implementation report that school counselors' time allocation does not change (Cressey et al., 2014). Researchers also propose that CSCP and MTSS alignment can actually lead to more efficient use of school counselors' time (Goodman-Scott, 2014; Goodman-Scott et al., 2016) and an increased capacity for leadership (Betters-Bubon & Donohue, 2016). This research study confirms that time spent on ASCA aligned activities is directly related to school counselors' knowledge and skills of MTSS. Specifically, more time spent on ASCA aligned activities predicted more knowledge and skills of MTSS. In addition, time spent on ASCA aligned activities

played a mediating role in the relationship between school setting, school level, MTSS training, challenges, and knowledge and skills of MTSS.

Challenges to obtaining knowledge and skills of MTSS. Taken together, the literature addressing challenges to obtaining knowledge and skills of CSCPs and MTSS makes clear that a variety of factors pose challenges for educators (Lapan et al., 2012; Lohrmann et al., 2013; Marrs & Little, 2014; Studer et al., 2011). However, there is currently no research examining the challenges school counselors face to obtaining knowledge and skills of MTSS. Researchers call for a clearer understanding of the challenges school counselors face to obtaining knowledge and skills of MTSS is called for by researchers (Chitiyo & Wheeler, 2009; Cressey et al., 2014; Eagle et al., 2015).

This research study found that challenges affiliated with training were indirectly related to school counselors' knowledge and skills of MTSS. More challenges related to training predicted less time spent on ASCA aligned activities, which was directly related to more knowledge and skills of MTSS. In addition, challenges associated with administrative support were indirectly related to school counselors' knowledge and skills of MTSS. More challenges related to administrative support predicted less time spent on ASCA aligned activities, which was directly related to more knowledge and skills of MTSS. Challenges associated with time were also indirectly related to school counselors' knowledge and skills of MTSS. More challenges related to time predicted less time spent on ASCA aligned activities, which was directly related to more knowledge and skills of MTSS. Finally, challenges affiliated with staff buy-in were indirectly related to school counselors' knowledge and skills of MTSS. More school challenges related to staff buy-in of MTSS implementation predicted less time spent on

ASCA aligned activities, which was directly related to more knowledge and skills of MTSS. These results reiterate that challenges related to training, administrative support, time, and staff buy-in decrease the amount of time school counselors spend on ASCA aligned activities. Therefore, the more these challenges are present, the less students may be benefiting from a CSCP aligned with the ASCA national model. These results also indicate that school counselors face similar challenges to obtaining the knowledge and skills needed to effectively implement MTSS as other educators. Given their evolving role in the alignment of CSCPs and MTSS, school counselors can use leadership and advocacy to address these challenges.

School level. In the literature, school level impacts school counselors' implementation of CSCPs (Dahir & Stone, 2012). In previous research measuring how school counselors spend their time, school counselors at the elementary level were found to be more likely to implement CSCPs consistent with the ASCA National Model (2012a) compared to middle and high school counselors (Janson et al., 2009; Scarborough & Culbreth, 2008). In addition, more schools at the elementary school level implement MTSS compared to middle and high schools (Freeman et al., 2015). This research study adds to the literature on the effects of school level on the role of the school counselor in that school level was indirectly related to school counselors' knowledge and skills of MTSS. However, contrary to previous research and literature, when compared to elementary school level, secondary school level predicted more time spent on ASCA aligned activities, which was directly related to knowledge and skills of MTSS. There was not a significant relationship between K-8 and K-12 school levels and elementary level in terms of knowledge and skills of MTSS.

The contrary results found in this research study are surprising given the strong literature base showing that elementary school counselors are more likely to spend time on ASCA aligned activities because of their differing roles and structure of their perspective schools and staff. However, the results of this study may indicate a shift in how some middle and high school counselors are spending their time. More research is needed with the sample in this study to further investigate the difference between how elementary and middle and high school counselors spend their time with ASCA aligned activities.

School setting. School counselors in rural, suburban, and urban school settings face unique challenges characteristic of their context (Grimes, Haskins, & Paisley, 2013; Lee, 2005; Watson, 2012). Similarly, school setting impacts MTSS implementation in terms of staff training, resources, and student needs (Bohanon et al., 2006); Brendle, 2015). In this research study, rural school setting was indirectly related to knowledge and skills of MTSS. Compared to suburban school setting, rural school setting predicted less time spent on ASCA aligned activities, which was directly related to school counselors' knowledge and skills of MTSS. There was not a significant relationship between urban school setting compared to suburban school setting in terms of knowledge and skills of MTSS. In some ways, these results are not surprising given the unique challenges many school counselors in rural settings face in terms of fewer resources and fewer professional development opportunities compared to school counselors in suburban settings (Brendle, 2015; Griffin & Galassi, 2010; Grimes, Haskins, & Paisley, 2013; Robertson & Full, 2015). However, counter to a significant body of literature describing the differences between the resources, training opportunities, and challenges related to

MTSS implementation in urban and suburban settings, this study found no difference between urban and suburban school counselors knowledge and skills of MTSS. This result may indicate characteristics unique to the sample involved in the study; or be an indication that more school counselors in urban settings are recognizing the benefits of MTSS and are gaining the knowledge and skills needed to implement MTSS and support all students (Cressey et al, 2014).

Type of MTSS training. Ongoing and comprehensive training for school staff is a foundational component of developing the knowledge and skills needed to effectively implement MTSS (Freeman et al., 2015). Literature describing school counselors' involvement in MTSS training and implementation indicates that MTSS training benefits school counselors in many ways including their knowledge and skills of MTSS (Betters-Bubon & Donohue, 2016; Cavanaugh & Swan, 2015). This research study adds to this literature base. MTSS training was indirectly related to school counselors' knowledge and skills of MTSS. More MTSS training predicted more time spent on ASCA aligned activities, which was directly related to more knowledge and skills of MTSS.

This research study was the first to examine factors that relate to school counselors' knowledge and skills of MTSS. Therefore, this research study establishes an empirical foundation regarding school counselors' knowledge and skills of MTSS and the factors that relate to school counselors' knowledge and skills of MTSS. Overall, results indicate that time spent on ASCA aligned activities is directly related to school counselors' knowledge and skills of MTSS. In addition, time spent on ASCA aligned activities mediated the effects of other factors on school counselors' knowledge and skills of MTSS. This mediation indicates that time spent on ASCA aligned activities plays a

role in the extent to which rural school setting, secondary school level, MTSS training, challenges related to training, challenges related to administrative support, challenges related to time, and challenges related to staff buy-in of MTSS predicts school counselors knowledge and skills of MTSS. Rural school setting, secondary school level, MTSS training, challenges related to training, challenges related to administrative support, challenges related to time, and challenges related to staff buy-in of MTSS were all factors that indirectly related to school counselors knowledge and skills of MTSS.

Contributions of the Study

This research is the first study to examine factors related to school counselors' knowledge and skills of MTSS. The results of this research study establish a baseline regarding a new but growing topic in school counseling. In addition, this research study contributes an empirical analysis of a variety of factors that influence the work of school counselors as well as their knowledge and skills of MTSS. Results of this research study can be used to inform key stakeholders (e.g., school counselor educators, school counselor directors, practicing school counselors) in terms of the training needs, challenges, and factors that are related to school counselors obtaining the knowledge and skills they need to implement MTSS. In addition, the research design of this study offers a framework for school counselor educators, school counselor directors, and practicing school counselors to measure school counselors' knowledge and skills of MTSS before, during, and after MTSS training and MTSS implementation. This measurement model could contribute to determining effective strategies for improving and sustaining school counselors' knowledge and skills of MTSS.

This research study adds new findings to the growing literature base focused on the alignment of CSCPs via the ASCA National Model (2012a) and MTSS, and school counselors role in MTSS implementation Betters-Bubon & Donohue, 2016; Campbell, Rodriguez, Anderson, & Barnes, 2013; Curtis et al., 2010; Smith, Evans-McCleon, Urbanski, & Justice, 2015). This study found that the more school counselors reported spending time on ASCA aligned activities, the more knowledge and skills of MTSS they reported having. This finding contributes empirical evidence regarding the relationship between ASCA aligned activities and MTSS. In addition, this study measured school counselors' knowledge and skills of MTSS and established that school counselors in this study have at least a moderate knowledge and skills of MTSS. The extent of school counselors knowledge and skills of MTSS was previously unclear and these results provide an initial measurement. Finally, previous literature describes the effects of school setting, school level, training, and challenges on MTSS knowledge and skills of MTSS. However, the impact of each of these factors has been explored individually and not solely on samples of practicing school counselors. This study examined the impact of each factor together with a sample of practicing school counselors to determine which factors relate to school counselors knowledge and skills of MTSS.

Limitations of the Study

There are several limitations to this study. First, because the survey responses were self-reported, participants may have responded in socially desirable ways. Participants were informed that their survey responses would not be associated with their responses. However, because many school counselors are taught how they should ideally spend their time, participants may have responded to survey items measuring how they

spend their time in ways they felt were more acceptable than how they actually spend their time. In addition, participants may have responded to items measuring their knowledge and skill of Multi-Tiered Systems of Support (MTSS) in ways that portray them as knowledgeable and skillful.

Second, the generalizability of the results of this study is limited to ASCA members. In addition, ASCA members may be more likely participate in research and may respond to survey items differently than school counselors who are not ASCA members. Finally, school counselors who chose to complete the survey may be different than school counselors who did not complete the survey. More specifically, school counselors who chose to complete the survey might have different levels of training, perceive different challenges, spend their time differently, and have a different level of knowledge and skills of MTSS than school counselors who did not complete the survey. In addition, the lack of participant diversity in terms of gender and race is a limitation. Participants in this study were female and Caucasian. However, these numbers are reflective of the lack of diversity among professional school counselors in today's schools (Bruce & Bridgeland, 2012).

Implications of the Findings

The results of this study contribute to the school counseling literature by providing empirical research that establishes a baseline measurement of the extent of school counselor's knowledge and skills of MTSS. In addition, the results of this study establish an understanding regarding the factors that relate to school counselors knowledge and skills of MTSS. These findings have implications for school counselor training programs, counselor educators as well as practicing school counselors.

The results of this study have important implications for school counselor training programs. The extent to which school counselor training programs incorporate knowledge and skills of MTSS is unclear, however this incorporation is called for by researchers (Goodman-Scott, 2015; Knight, 2015; Slaten, Scalise, Gutting, & Baskin, 2013). In addition, MTSS training has shown to benefit school counselors in many ways including increased knowledge and skills of MTSS, increased leadership capacity, and the ability to contribute to school wide behavior improvement efforts (Betters-Bubon & Donohue, 2016; Cavanaugh & Swan, 2015).

This research study adds to the body of literature demonstrating the relationship between training and the development of school counselors' knowledge and skills of MTSS. Given that school counselors are introduced to CSCPs and the ASCA National Model (2012a) during their training programs, it is logical for school counselors to also be introduced to MTSS during training programs. MTSS can be incorporated into school counseling training programs during introductory school counseling courses, as a stand-alone course, through supplementary training sessions, or during practicum and internship field experiences. Incorporating the principles and practices of MTSS implementation into school counseling programs would provide school counselors in training with a strong foundation of knowledge and skills to bring into the field, rather than waiting to develop knowledge and skills of MTSS through professional development opportunities after graduation. School counselors in training would also be better equipped to work in today's K-12 schools, and enter the field ready to collaborate with the many educators already implementing MTSS across the country.

The results of this study also have implications for counselor educators. In order to incorporate MTSS principles and practices into school counselor training programs, counselor educators must have a proficient knowledge and skill base of MTSS. For counselor educators not experienced in MTSS, national, state, local professional development opportunities are available. In addition, collaboration among counselor educators and between counselor educators and professional in other disciplines (e.g., special education, educational leadership, school psychology, teacher education) can be a way to share resources and teaching strategies, and develop research opportunities.

In addition to counselor educators, the results of this study also have implications for practicing school counselors. The results of this research study indicate that particular factors pose challenges to school counselors obtaining knowledge and skills of MTSS. These results may indicate the specific challenges school counselors' need to target and address to better develop knowledge and skills of MTSS. In addition, school counselors can assess the context specific challenges they face at the building, district, or state level to focus advocacy efforts and resources to reduce challenges.

Finally, the results of this study may assist school counselors and district and state leaders in planning professional development aimed at increasing school counselors' knowledge and skills of MTSS. The results of this study indicate MTSS training is related to knowledge and skills of MTSS. Therefore, school counselors and leaders involved in planning professional development may seek out collaboration, model school sites, and training at the national, state, and local levels. Further, school counselors and school counselor leaders can measure the effects training has on knowledge and skills development. Taken a step further, school counselors can measure the impact MTSS

training and MTSS knowledge and skills has on the quality MTSS implementation and relevant student outcomes.

Recommendations for Future Research

This research study contributes to the school counseling literature base and has important implications for school counselor training programs, counselor educators, school counseling leaders, and practicing school counselors. As a result, recommendations for future research emerge. First, this study included school counselors who are members of the American School Counselor Association (ASCA). ASCA members might have different perceptions and experiences that school counselors who are not ASCA members. Therefore, future research could examine the factors that relate to school counselors knowledge and skills of MTSS using a state or district level sample that includes all school counselors regardless of ASCA membership status.

Second, school counselors in this study reported several challenges to obtaining knowledge and skills of MTSS. Knowledge and skills are needed to coordinate and implement MTSS and school counselors are well suited for key roles in MTSS implementation. Therefore, future research could focus on developing strategies to overcome the challenges school counselors face in obtaining the knowledge and skills of MTSS. After strategies to overcome challenges are put in place, school counselors' knowledge and skills of MTSS could be measured to determine the most effective strategies for overcoming challenges to school counselors obtaining the knowledge and skills of MTSS.

The third recommendation for future research relates to school counselor training. Given the potential benefits of comprehensive school counseling program (CSCP) and

MTSS integration, future research could focus on the effects of MTSS training on school counselor's knowledge and skills of MTSS. Research focused on MTSS training and school counselors can be conducted with school counselors in training as well as practicing school counselors.

Future research could focus on the effects of integrating knowledge and skills of MTSS into school counselor education programs. This research could include developing strategies to incorporate knowledge and skills of MTSS into coursework and practicum and internship experiences. The impact of integrating MTSS into school counseling programs graduates' knowledge and skills of MTSS can then be measured. The results of this study provide a foundation for future research. It is clear that there is a lack of empirical research exploring the beneficial relationship between CSCPs and MTSS. However, future research can add to the school counseling literature and contribute to the effectiveness of school counseling practices.

Future research could also address the impact of CSCPs that are aligned with MTSS. CSCPs that are aligned with MTSS could be evaluated and compared to CSCPs that are not aligned with MTSS. Data from such research could reveal components of CSCP and MTSS alignment that that are particularly beneficial for all students or components of MTSS that enhance CSCPs. Finally, future research could focus on directly observing how school counselors spend their time on ASCA aligned activities and how knowledge and skills of MTSS are applied in practice.

Concluding Remarks

Students in today's schools have diverse academic and behavioral needs (Lopez & Bursztyn, 2013; Vincent, Randall, Cartlege, Tobin, & Swain-Bradway, 2011). Given

their training to implement CSCPs, school counselors have an important role in meeting the needs of all students (Lapan, 2012; Wilkerson et al., 2013). Alongside CSCPs, the implementation of MTSS plays a critical part in meeting the academic and behavioral needs of all students. Although previous research describes a framework for CSCP and MTSS alignment and the positive results of school counselor involvement in MTSS implementation, little empirical evidence exists demonstrating the extent of school counselors' knowledge and skills of MTSS or the factors that influence their knowledge and skills of MTSS. This research study adds to the growing literature examining the alignment of school counseling and MTSS, and extends the knowledge base by providing an empirical examination of school counselors' knowledge and skills of MTSS. Results of this research study can guide counselor educators, school leaders, and practicing school counselors in assessing school counselors' knowledge and skill of MTSS and determining action plans to improve knowledge and skills. The alignment of CSCPs via the ASCA National Model (2012a) and MTSS can benefit school counselors but most importantly, the students in K-12 schools.

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APPENDIX A: PILOT STUDY PROCEDURE

The purpose of the pilot study was to (1) determine the clarity and conciseness of the directions and items on the Demographic Questionnaire, and (2) determine the amount of time it takes to complete the survey (Dillman, Smyth, & Christian, 2014; Andrews, Nonnecke, & Preece, 2003). The following steps were used to conduct the pilot study.

1. Practicing school counselors and counselor educators were asked to take the survey.
2. Following survey completion, participants were asked to provide feedback on the following questions:
    A. Are the directions for each section of the survey clear and concise?

    Suggestions for improving clarity and conciseness:

    B. How long did it take you to complete the survey?

    C. Are items on the Demographic Questionnaire clear and concise?

    Suggestions for improving clarity and conciseness:

APPENDIX B: INTRODUCTORY LETTER

Dear (Name Inserted),

You have been selected to receive this email as an invitation to participate in an online survey. The purpose of this study is to learn about the perceptions of practicing school counselors, and the results will be used to improve school counseling training and practices. The survey is part of the dissertation requirements for a Doctor of Philosophy Degree in counseling at the University of North Carolina at Charlotte. Your name and email address were obtained from the American School Counselor Association (ASCA) online membership directory.

The survey will only take approximately 10-15 minutes to complete. If you choose to participate in this study, your information will be kept confidential, and no names or email addresses will be identified with your responses. You may withdraw or decline without penalty at any time. If you choose to participate in this study, you will also be entered into a drawing for one of two Amazon Fire Tablet Computers or a $100.00 Target gift card.

Please click on the following link to complete the survey:

http://www.surveyshare.com/s/AYAIFMC

Your participation and time is greatly appreciated.

Sincerely,

Jacob Olsen, M.Ed.
Doctoral Candidate
Department of Counseling
University of North Carolina at Charlotte

APPENDIX C: INFORMED CONSENT FORM

Dear Participant,

As a school counseling professional you are being invited to participate in a quantitative research study that will examine the perceptions of school counseling professionals. You are eligible to participate because you are a licensed or certified practicing school counselor. Your participation will involve completing a survey.

The survey will take approximately 10-15 minutes. Any identifying information collected will not be linked to your responses and information collected will be kept confidential.

The benefits of your participation in this study include contributing to the current knowledge, characteristics, and views regarding current issues in the school counseling profession as well as implications for counselor educators and trainees. There are no known risks in participating in this study. You may withdraw or decline without penalty at any time. If you choose to participate in this study, you will also be entered into a drawing for one of two Amazon Fire Tablet Computers or a $100.00 Target gift card.

You are a volunteer. The decision to participate in this study is completely up to you. If you decide to be in the study, you may change your mind and stop at any time.

UNC Charlotte wants to make sure that you are treated in a fair and respectful manner. Contact the University's Research Compliance Office 704-687-1871 if you have any questions about how you are treated as a study participant. If you have any questions about the project, please contact me, Jacob Olsen, at 704-687-5224 or my Dissertation Chair Dr. Sejal Foxx, PhD, at 704-687-8963.

By proceeding to complete the online survey, you are (1) confirming you have read the information above, (2) confirming you are a licensed/certified practicing school counselor, and (3) providing informed consent to participate in this study.

Thank you for taking the time to participate.

Sincerely,

Jacob Olsen, M.Ed.
Doctoral Candidate
Department of Counseling
University of North Carolina at Charlotte

Dr. Sejal Foxx
Dissertation Chair
Department of Counseling
University of North Carolina at Charlotte

APPENDIX D: SCHOOL COUNSELING PROGRAM IMPLEMENTATION SURVEY

Please rate each statement below in terms of the frequency with which you perform each function. Circle your response using the following Rating Scale:

1 = I never do this; 2 = I rarely do this; 3 = I occasionally do this; 4 = I frequently do this

1. Write a mission statement and use it as a foundation.	1 2 3 4
2. Organize services so that all students are well served and have access to them.	1 2 3 4
3. Operate from a plan for closing the achievement gap for minority and lower income students.	1 2 3 4
4. Use a set of clear measurable student learning objectives and establish goals for academics, social/personal skills, and career development.	1 2 3 4
5. Complete needs assessments regularly and use to guide program planning.	1 2 3 4
6. Use student performance data to decide how to meet student needs.	1 2 3 4
7. Analyze student data by ethnicity, gender, and socioeconomic level to identify interventions to close achievement gaps.	1 2 3 4
8. Perform duties that match my job description.	1 2 3 4
9. Spend at least 80% of my time in activities that directly benefit students.	1 2 3 4
10. Implement interventions designed to improve the school's ability to educate all students to high standards.	1 2 3 4
11. Conduct an annual review to get information for improving next year's programs.	1 2 3 4
12. Use computer software to access student data.	1 2 3 4
13. Use computer software to analyze student data.	1 2 3 4
14. Use computer software to use data for school improvement.	1 2 3 4
15. Have resources to complete appropriate professional development activities.	1 2 3 4
16. Have my priorities represented on curriculum and education committees.	1 2 3 4
17. Communicate with parents to coordinate student achievement and gain feedback for program improvement.	1 2 3 4

Modified with permission from Clemens, E. V., Carey, J. C., & Harrington, K. M. (2010). The School Counseling Program Implementation Survey: Initial instrument development and exploratory factor analysis. *Professional School Counseling, 14*(2), 125-134.

APPENDIX E: SCHOOL COUNSELING KNOWLEDGE AND SKILLS SURVEY FOR MTSS

School Counselor Knowledge and Skills Survey for MTSS

Instructions

Rate your knowledge, skill level, or awareness of the following items on the following pages. It is very important that you rate yourself accurately. If you are not knowledgeable on a particular set of items or item, it does not reflect poorly on you as a school counselor. As a school counselor, you are always engaged in a process of improving your knowledge and skills to better serve your students. By engaging in an honest evaluation of your knowledge and skill level you will be able to help you and your school focus professional development on your needs and your school's needs. The rating scale ranges from one to five across the following anchors:

1=none or little 2=somewhat 3=moderate 4=strong 5=mastery

You should consider both your educational background and practical experience in your rating. High knowledge and skill levels are associated with strong educational backgrounds, compelling evidence of successful application of the skill, and external validation of your use of the skill. Limited knowledge and skill levels are based on limited formal educational exposure, no or limited practical experience, and no external validation of your skill level. It is our experience that most educators operate somewhere along this continuum of knowledge and skills. We have provided definitions to assist you in your rating of your knowledge and skill level. You should adhere to the definitions in Table 1 when rating yourself along this continuum. Review the definitions carefully before proceeding.

Once your understanding of the rating scale and the continuum of knowledge and skills for MTSS is comprehensive, you may proceed by completing the survey based on the definitions in Table 1. If you do not understand an item, please ask for clarification before rating yourself on your skill level.

Thank you for completing the survey and your dedicated service.

Table 1 School Counselor Knowledge and Skills Continuum for MTSS

1 = none or little	I am not aware of the knowledge, policy, or skill, or I am slightly aware (e.g., heard of it) but have never practiced it or applied it.
2 = somewhat	I am aware of the of the knowledge, policy, or skill, and I was exposed to this content in some professional development/university course work, and have had some limited applied practice (i.e., project; practicum; some work experience) in using knowledge, policy, or skill. No MTSS expert* has ever validated this applied skill through **observation of me**.
3 = moderate	I have demonstrated my understanding of the knowledge, policy, or skill through a comprehensive professional development/university course work (i.e., multiple follow-up sessions where I had to demonstrate my knowledge), and I have used or applied the knowledge policy or skill in an applied instructional setting. No MTSS expert* has ever validated this applied skill through **observation of me.**
4 = strong	I have demonstrated my understanding of the knowledge, policy, or skill through a comprehensive professional development/university course work (i.e., multiple follow-up sessions where I had to demonstrate my knowledge), and I perceive myself to apply it successfully some of the time in practice and a MTSS expert* validated my skill through **observation** on **at least one** occasion.
5 = mastery	I have demonstrated my understanding of the knowledge, policy, or skill through a comprehensive professional development/university course work (i.e., multiple follow-up sessions where I had to demonstrate my knowledge), and have repeatedly demonstrated successful independent implementation of the knowledge, skill, or policy as evidenced and validated by a MTSS expert's* **multiple observations** and **confirmation** of my mastery level of performance.
	***Note:* MTSS expert is defined as someone with an advanced degree in a related field that has extensive formal training in MTSS, and at least 7 years experience in MTSS.**

1=none or little 2=somewhat 3=moderate 4=strong 5=mastery

Rate the following regarding your knowledge on the item:	**Rating**
1. I know our school's policies and programs regarding the prevention of behavior problems.	1 2 3 4 5
2. I understand the role and function of our school-wide behavior team.	1 2 3 4 5
3. I know our annual goals and objectives for the school-wide behavior program.	1 2 3 4 5
4. I know our school's system for screening students with behavior problems.	1 2 3 4 5
5. I know how to access and use our school's pre-referral teacher assistance team.	1 2 3 4 5
6. I know how to provide access and implement our school's counseling programs.	1 2 3 4 5
7. I know the influence of cultural/ethnic variables on student's school behavior.	1 2 3 4 5
8. I know the programs our school uses to help students with their social and emotional development (school-wide expectations, conflict resolution, etc.).	1 2 3 4 5
9. I know a range of community services to assist students with emotional/behavioral problems.	1 2 3 4 5
10. I know our school's discipline process – the criteria for referring students to the office, the methods used to address the problem behavior, and how and when students are returned to the classroom.	1 2 3 4 5
11. I know what functional behavioral assessments are and how they are used to develop behavior intervention plans for students.	1 2 3 4 5
12. I know how our school-wide behavior team collects and uses data to evaluate our school-wide behavior program.	1 2 3 4 5
13. I know how to provide accommodations and modifications for students with emotional and behavioral disabilities (EBD) to support their successful participation in the general education setting.	1 2 3 4 5
14. I know our school's crisis intervention plan for emergency situations.	1 2 3 4 5

Continued on the next page

1=none or little 2=somewhat 3=moderate 4=strong 5=mastery

Rate how effectively you use the following skills/strategies.	**Rating**
15. Approaches for helping students to solve social/interpersonal problems.	1 2 3 4 5
16. Methods for teaching the school-wide behavioral expectations/social skills.	1 2 3 4 5
17. Methods for encouraging and reinforcing the use of expectations/social skills.	1 2 3 4 5
18. Strategies for improving family-school partnerships.	1 2 3 4 5
19. Collaborating with the school's student assistance team to implement student's behavior intervention plans.	1 2 3 4 5
20. Collaborating with the school's IEP team to implement student's individualized education programs.	1 2 3 4 5
21. Evaluating the effectiveness of student's intervention plans and programs.	1 2 3 4 5
22. Modifying curriculum to meet individual performance levels.	1 2 3 4 5
23. Selecting and using materials that respond to cultural, gender or developmental differences.	1 2 3 4 5
24. Establishing and maintaining a positive and consistent classroom environment.	1 2 3 4 5
25. Identifying the function of student's behavior problems.	1 2 3 4 5
26. Using data in my decision-making process for student's behavioral programs.	1 2 3 4 5
27. Using prompts and cues to remind student's of behavioral expectations.	1 2 3 4 5
28. Using self-monitoring approaches to help students demonstrate behavioral expectations.	1 2 3 4 5
29. Communicating regularly with parents/guardians about student's behavioral progress.	1 2 3 4 5
30. Using alternative settings or methods to resolve student's social/emotional problems (problem-solving, think time, or buddy room, etc. **not a timeout room**).	1 2 3 4 5
31. Methods for diffusing or deescalating student's social/emotional problems.	1 2 3 4 5
32. Methods for enhancing interpersonal relationships of students (e.g., circle of friends, buddy system, peer mentors).	1 2 3 4 5
33. Linking family members to needed services and resources in the school.	1 2 3 4 5

Thank You!

Modified from Blum, C., & Cheney, D. (2012). Teacher Knowledge and Skills Survey, Bloomington IL: Illinois State University.

APPENDIX F: DEMOGRAPHIC QUESTIONNAIRE

Instructions: Please indicate your answer for the following demographic questions by typing an "X" on the appropriate line.

1. What is your gender?
    1) Female _____
    2) Male _____

2. What is your age in years?
    1) Under 25 _____
    2) 25-30 _____
    3) 31-40 _____
    4) 41-60 _____
    5) Over 60 _____

3. How do you best self identify your race?
    1) Caucasian _____
    2) African American _____
    3) Asian/Pacific Islander _____
    4) Hispanic/Latino _____
    5) Native American _____
    6) Multi-Racial _____
    7) Other _____

4. How many years have you been a licensed/certified school counselor?
    1) 1-3 _____
    2) 4-8 _____
    3) 9-14 _____
    4) 15-20 _____
    5) 21-Plus _____

5. What is the size of your school?
    1) Less than 500 students _____
    2) 500-1000 students _____
    3) More than 1000 students _____

6. What is the size of your student caseload?
    1) 250 students or less _____
    2) 251-500 students _____
    3) 501-1000 students _____
    4) More than 1000 students _____

7. What percentage of students in your school are eligible for free or reduced priced lunch?

1) Less than 25% _____
2) 25%-50% _____
3) 51%-75% _____
4) More than 75% _____

8. Would you consider your school racially or ethnically diverse?
1) No _____
2) Yes _____

9. At which level are you a school counselor?
1) Elementary School _____
2) Middle/Junior High _____
3) High School _____
4) K-8 _____
5) K-12 _____

10. What type of school setting do you work in?
1) Rural _____
2) Suburban _____
3) Urban _____

11. In which region of the country do you work?
1) East _____
2) South _____
3) Midwest _____
4) West _____

12. Based on the benchmarks below, indicate the extent of your training in MTSS (for example Positive Behavioral Interventions and Supports (PBIS) or Response to Intervention (RtI))

No Training	Have not received any training on MTSS
Low	Initial training, introductory content knowledge, single training or presentation, have heard or know about MTSS
Medium	In-depth training, applied content knowledge, multiple trainings or presentations, have been trained and have started implementing or been implementing less than six months
High	Comprehensive training and on-site coaching, mastery content knowledge, training or presentation provider, have been fully trained and coached and have been implementing for six months or longer and/or coaching and training others

1) No Training
2) Low Training
3) Medium Training
4) High Training

13. What are the challenges, if any, to obtaining the knowledge and skills you need to implement Multi-Tiered Systems of Support (MTSS) effectively (for example Positive Behavioral Interventions and Supports (PBIS) or Response to Intervention (RtI))?

Please rate each of the following challenges based on the scale below.

None = Don't need more of Some = Need some more of A lot = Need a lot more of

Need more training

None Some A lot

Need more administrative support

None Some A lot

Need more time

None Some A lot

Need more staff buy-in

None Some A lot

APPENDIX G: FOLLOW UP EMAIL

Dear (Name Inserted),

This is reminder regarding the survey that was sent to you last week. Please consider this reminder as another opportunity to provide your feedback since responses will continue to be collected through (Date Inserted).

You have been selected to receive this email as an invitation to participate in an online survey. The purpose of this study is to learn about the perceptions of practicing school counselors, and the results will be used to improve school counseling training and practices. The survey is part of the dissertation requirements for a Doctor of Philosophy Degree in counseling at the University of North Carolina at Charlotte. Your name and email address were obtained from the American School Counselor Association (ASCA) online membership directory.

The survey will only take approximately 10-15 minutes to complete. If you choose to participate in this study, your information will be kept confidential, and no names or email addresses will be identified with your responses. You may withdraw or decline without penalty at any time. If you choose to participate in this study, you will also be entered into a drawing for one of two Amazon Fire Tablet Computers or a $100.00 Target gift card.

Please click on the following link to complete the survey:

http://www.surveyshare.com/s/AYAIFMC

Your participation and time is greatly appreciated.

Sincerely,

Jacob Olsen, M.Ed.
Doctoral Candidate
Department of Counseling
University of North Carolina at Charlotte

APPENDIX H: CORRELATION MATRIX FOR STUDY VARIABLES

	Po	Cs	Ser	Sb	Ti	Sw	Ic	Pc	Rur	Urb	Othe	Sec	Trai	Chtr	Chad	Chti	Chbu
Po	1.00																
Cs	.42**	1.00															
Ser	.54**	.31**	1.00														
Sb	.39**	.22**	.35**	1.00													
Ti	.37**	.21**	.38**	.85**	1.00												
Sw	.38**	.21**	.40**	.75**	.73**	1.00											
Ic	.36**	.22**	.36**	.77**	.76**	.69**	1.00										
Pc	.37**	.16**	.35**	.80**	.79**	.67**	.72**	1.00									
Rur	-.05**	-.04*	-.03*	-.03	-.06**	.00	-.02	-.02	1.00								
Urb	.04*	.02	-.03*	.00	.00	-.02	-.02	-.01	-.38**	1.00							
Othe	-.04**	-.08**	.00	-.01	-.01	-.01	.01	.01	.10**	.01	1.00						
Sec	-.01	.15**	-.05**	-.09**	-.06**	-.12**	-.04**	-.19**	-.07**	.01	-.42**	1.00					
Trai	.29**	.19**	.22**	.39**	.35**	.41**	.34**	.36**	-.04**	.04*	-.03	-.16**	1.00				
Chtr	-.22**	-.15**	-.21**	-.34**	-.32**	-.37**	-.31**	-.31**	.06**	.00	.03	.08**	-.58**	1.00			
Chad	-.18**	-.09**	-.28**	-.19**	-.17**	-.29**	-.17**	-.19**	-.03	.07**	.02	.08**	-.22**	.34**	1.00		
Chti	-.16**	-.07**	-.21**	-.14**	-.13**	-.16**	-.14**	-.14**	.04*	.03*	.03	.04**	-.16**	.36**	.35**	1.00	
Chbu	-.12**	-.05**	-.20**	-.13**	-.13**	-.19**	-.13**	-.14**	.02	.03	.03	.07**	-.09**	.26**	.49**	.41**	1.00

Note: po = time spent on programmatic orientation; cs = use of computer software; ser = time spent on school counseling services; sb = specialized behavior supports and practices; ti = targeted intervention supports and practices; sw = school-wide MTSS practices; ic = individualized curriculum and support practices; pc = positive classroom supports and practices; rur = rural; sub = suburban; urb = urban; prim = primary grades; othe = K-8 and K-12 grades; sec = secondary grades; trai = MTSS training; chtr = challenge training; chad = challenge administrator support; chti = challenge time; chbu = challenge staff buy-in; *Correlation is significant at .05 level (2-tailed); **Correlation is significant at the .01 level (2-tailed).