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Measuring High School Counselor Beliefs on the Importance of MTMDSS Universal Supports Since COVID-19

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MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE IMPORTANCE OF
MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19

A Dissertation

Presented to

The Faculty of the Educational Doctoral Program in Educational Leadership

San José State University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

by

Ryan J. Carter

August 2023

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The Designated Thesis Committee Approves the Dissertation Titled

MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE
IMPORTANCE OF MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19

by

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SAN JOSÉ STATE UNIVERSITY

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ABSTRACT

MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE IMPORTANCE OF MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19

by Ryan J. Carter

The U.S. onset of the COVID-19 pandemic in 2020 brought immediate and unprecedented disruption to California secondary education. High school students in California have endured varying degrees of uncertainty, hardship, and trauma, with the full extent of impacts on students not yet known. California high school counselors, faced with the dilemma of how to support student needs effectively and equitably during COVID-19, have looked to the state as well as professional organizations for guidance on best support practices. Multi-tiered support frameworks, such as MTSS and MTMDSS have emerged as prominent pandemic response recommendations and are being implemented throughout California. The implementation and use of MTSS/MTMDSS by school counselors presupposes a belief in these systems. This explanatory sequential mixed methods study aimed to explore and measure California high school counselor beliefs about the importance of MTMDSS (Tier 1) Universal Supports since the onset of the COVID-19 pandemic. Data were collected from 113 California high school counselors through the researcher-developed Universal Supports Importance Scale (USIS) survey instrument and from 6 follow-up semi-structured interviews. Findings suggested that the counselors studied had high levels of belief in the importance of MTMDSS Universal Supports; however, enhancements to the USIS are recommended to capture a more complete range of school counselor beliefs in future research. This study also sought to validate the USIS instrument, which displayed strong evidence for overall quality of items design and showed promise for future use.

DEDICATION

Reflecting on this journey, there are many people to thank. Mom, thank you for talking me into jumping off that diving board as a little boy—you always knew I was ready before I did. That moment set the tone for every leap of faith that I have taken in my life, including this one. Philip, my biggest moments of success can always be traced back to a million little moments of you helping me get there. Inge, your generosity was key in making this dream a reality and I am very grateful.

The success of this dissertation is directly connected to the support of my dissertation advisor and committee. Dr. Duckor, thank you for encouraging me to go big. I knew that I would learn a lot from you, but I never could have imagined it would be this much. Having a measurement expert, master teacher, and fierce advocate advising me, challenging me, and always believing in me, has been the highlight of this experience. Dr. Capizzi and Dr. Baltazar-Sabbah, what an honor to have two absolute experts in the field of school counseling informing this study. Your engagement, contributions, and commitment to ensuring that this work remained rooted in social justice was invaluable. Thank you.

“Lucky” Cohort 7, your support, teachings, and emojis were the gifts that kept on giving. Special thanks to my triad, Christina Ballantyne and Ash Busby, for balancing the serious, strenuous, and at times isolating work with levity, empathy, and camaraderie.

This work is dedicated to school counselors everywhere, who devote their careers to advocating for the students who need it the most.

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LIST OF ABBREVIATIONS

AERA – American Educational Research Association
ASCA – American School Counselor Association
CA SUMS – California Scale-Up MTSS Statewide
CACREP – Council for Accreditation of Counseling & Related Educational Programs
CASC – California Association of School Counselors
CASEL – Collaborative for Academic, Social, and Emotional Learning
CDE – California Department of Education
CEST – Cognitive-Experiential Self-Theory
COVID-19 – Coronavirus Disease 2019
DIF – Differential Item Functioning
ELD – English Language Development
ESSA – Every Student Succeeds Act
IDEA – Individuals with Disabilities Education Act
IRT – Item Response Theory
LCAP – Local Control Accountability Plan
LCFF – Local Control Funding Formula
MTMDSS – Multi-Tiered, Multi-Domain System of Supports
MTSS – Multi-Tiered System of Supports
NCLB – No Child Left Behind Act
NRC – National Research Council
OCDE – Orange County Department of Education
PBIS – Positive Behavioral Interventions and Supports
RTI – Response to Intervention
SCPCS – School Counseling Program Component Scale
SEL – Social and Emotional Learning
SPSS – Statistical Product and Service Solutions
T1 – Tier 1
T2 – Tier 2
T3 – Tier 3
USIS – Universal Supports Importance Scale
VIF – Variance Inflation Factor

Chapter One: Introduction

The objective of secondary school counseling is “to help students overcome barriers to learning and to prepare for successful lives after high school graduation” (ASCA, 2019a, p. x). The United States (U.S.) onset of the COVID-19 pandemic in March 2020, brought immediate and unprecedented disruption to California secondary education, beginning with school closures, transitions to distance learning, and new modes of instruction (Savitz-Romer et al., 2021). Abruptly, California high school counselors were required to drastically modify how they delivered services to over two million students in a system that had remained operationally unchanged throughout the last century (Huck & Zhang, 2021). What was initially anticipated as a temporary crisis, persisted, and evolved into a new era in California education, involving complexities beyond the Coronavirus.

The COVID-19 pandemic era in schools thus far, has been complex, multifaceted, and defined by uncertainty and change (Minkos & Gelbar, 2020). California high school students have experienced the pandemic in vastly different ways depending on a variety of intersectional and demographic factors (Azar et al., 2021; Goldhaber et al., 2022; Sullivan et al., 2020). Personal health fears, economic instability, social isolation, and social injustice and unrest have all been contributing factors influencing the experiences of California high school students throughout the pandemic, with the most significant impact on students from underrepresented and/or marginalized backgrounds (Azar et al., 2021; Sullivan et al., 2020).

The past three years of disruptions to traditional learning formats have also shone a spotlight on preexisting inequities within California secondary public education (Largent et al., 2021; Sullivan et al., 2020). Inequitable access to instruction, academic and personal

supports, and other resources while in distance learning, as well as abruptly discontinued basic needs services that schools normally provide, all disproportionately affected disadvantaged students and under-resourced schools in California and ultimately, threatened students' academic success (Garcia & Weiss, 2020; Goldhaber et al., 2022; Jack et al., 2021).

Inextricably woven into the first years of the pandemic, human rights mobilization and activism, in response to social injustices throughout the U.S. further illuminated societal inequities. In the height of the pandemic, the Black Lives Matter movement gained national prominence, sparked intense race dialogue and debate, and emboldened calls for social justice and racial equity at the national level, as well as educational equity within California public school districts (Sullivan et al., 2020). As a result of increased awareness and exposure to inequities and growing demands to address them, many California public school districts responded by instituting equity-oriented goals, curriculum, institutional policy and practices, and state-endorsed systems of support to ensure the success of all students (Largent et al., 2021; OCDE, 2020). One such state-endorsed equity-oriented system that has been widely implemented within California during this time is the Multi-Tiered System of Supports framework.

Multi-Tiered System of Supports (MTSS) has been steadily expanding in school settings throughout California over the last decade (Sailor et al., 2021). Prior to the arrival of COVID-19, the California Department of Education (CDE) embraced MTSS as “essential” and adopted a state MTSS model (CDE, 2022). Recent state legislation has further fueled MTSS prominence within school districts throughout California. California Assembly Bill (AB) 104 and Senate Bill 828 recently funded a “scaling-up” of MTSS (CA SUMS) to

encourage school districts throughout the state to “establish and align school-wide, data-driven systems of academic and behavioral supports to more effectively meet the needs of California’s diverse learners in the most inclusive environment” (OCDE, 2020). In the fall of 2022, California’s state legislature passed Assembly Bill (AB) 2508, with the governor signing it into law and California Education Code shortly thereafter. California Education Code (§49600, 1987/2022) “require[s] educational counseling to also include certain postsecondary services” and calls on public school counseling programs throughout California to “work within multi-tiered systems of support that use multiple data sources to monitor and improve pupil behavior, attendance, engagement, and achievement.” Further, California’s MTSS model is designed to align with California’s Eight State Priorities, Local Control Funding Formula (LCFF), and Local Control Accountability Plan (LCAP), which allows for California MTSS to be the “driver” of a statewide system of support (OCDE, 2020).

MTSS is intended to be a schoolwide system, drawing from the contributions of administrators, teachers, counselors, staff, families, and the community (Belser et al., 2016; Bohanon et al., 2021; Sailor et al., 2021). As MTSS has become increasingly prevalent in California public schools, school counselors have considered how to align their curriculum, standards, and competencies with the MTSS framework. In 2017, Dr. Tricia Hatch, a founding research contributor to the American School Counselor Association (ASCA) National Model for school counseling, as well as the CDE-appointed lead of school counseling MTSS professional development for the state of California, introduced a school counseling-specific delivery model that aligned the three main competency domains of the

ASCA National Model with MTSS. Multi-Tiered, Multi-Domain System of Supports (MTMDSS) provides school counseling programs a way to directly align their standards and competencies within a multi-tiered structure (Hatch et al., 2019). As a result, ASCA and California's state charter of ASCA, the California Association of School Counselors (CASC), included MTMDSS as a delivery model recommendation for MTSS within school counseling programs (ASCA, 2020b; CASC, 2020). The recommendations for California school counselors to utilize MTSS/MTMDSS in their pre-pandemic formats have increased in prominence since the arrival of the COVID-19 pandemic, while much within California education, including school counseling, has changed.

Statement of the Problem

Throughout the COVID-19 pandemic, California high school students have endured varying degrees of uncertainty, hardship, and trauma, presenting an evolving range of student needs (AAP, 2021; Minkos & Gelbar, 2020; Murata et al., 2021; Watson et al., 2022). California public high schools are faced with the question of how to address these challenges and needs in an equitable way, so that all their students can succeed within a tumultuous and unpredictable landscape, while simultaneously reckoning with the reality of limited resources to do so (Schilling, 2019). California public high schools have been forced to strategically consider how to best leverage their available resources, and in doing so, many have returned to preexisting, equity-focused systems of support, as well as the professionals within their schools whose primary role it is to support students during challenging times: school counselors.

Due to the nature of their role, school counselors are often the first responders to support students in dealing with academic and social-emotional challenges at school, and thus, have a front row seat to observe evolving trends in student needs (Belser et al., 2016; Cook et al., 2019; Miller et al., 2018). As secondary schools have returned to in-person instruction, students have arrived on high school campuses carrying with them the cumulative effects of the pandemic on their lives (Minkos & Gelbar, 2020). Limited and emerging research has revealed a correlation between the amount of time spent in distance learning and declines in academic achievement, with the most profound impact on students of color and/or students attending high-poverty schools (Goldhaber et al., 2022; Jack et al., 2021). Beyond declines in academic achievement, significant numbers of students have reported increases in anxiety, depression, stress, loneliness, chronic absenteeism, and suicidal ideation (AAP, 2021; Gazmararian et al., 2021; Murata et al., 2021). A 2020 study of high school students during distance learning revealed approximately one third of students reported experiencing anxiety or depression, 43% feeling isolated or lonely, and 50% experiencing high levels of stress regularly (Gazmararian et al., 2021). Furthermore, students from marginalized backgrounds disproportionately experience hardship, stress, anxiety, and depression more regularly and profoundly and are more likely to suffer unmet basic human needs (Capizzi & Bruce, 2021; Waselewski et al., 2020). As a result, students are presenting increased and varied needs in schools since COVID-19 that must be programmatically addressed to promote their academic success (ASCA, 2019a; Roman et al., 2021; Watson et al., 2022).

California high school counselors, faced with the dilemma of how to support student needs effectively and equitably with limited resources during COVID-19, have looked to the

state as well as professional organizations for guidance on best support practices. Multi-tiered support frameworks, such as MTSS and MTMDSS existed prior to COVID-19 and have emerged as prominent pandemic response recommendations (Sailor et al., 2021). MTSS/MTMDSS are currently being implemented in school districts throughout California as preventative frameworks that focus on distributing limited school resources equitably to ensure the success of all students (CDE, 2022; OCDE, 2020; Sullivan et al., 2020). Specific to school counselors, MTMDSS is aligned with the ASCA's National Model for School Counseling and is recommended by ASCA and CASC as a data-driven, prevention-focused support framework to meet the diverse needs of students in the COVID-19 era (ASCA, 2020b; CASC, 2020). The ongoing use of MTSS/MTMDSS by school counselors now, in an educational landscape with a student population that has endured a multi-year crisis, presupposes a belief in these systems and raises an important question: how essential are the various components and interventions of MTMDSS within this new COVID-19 era according to the school counselors who are tasked with implementing them in California high schools?

Significance of the Problem

Effective implementation and delivery of support programs such as MTMDSS can depend significantly on the belief of their importance by school counselors. Beliefs, as explored by this study, are an important construct to consider, as they can impact human behavior (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Research has revealed that beliefs can predict and influence the successful implementation of educational curriculum and student support services (Sink & Yillik-Downer, 2001). Historically, school counselor

beliefs have also played an integral role in shaping the priorities and direction of the school counseling profession throughout various national moments of educational significance over the last quarter century (Hatch & Chen-Hayes, 2008). School counselor beliefs have been called upon repeatedly, by the school counseling profession in the development of the ASCA National Model, and the ongoing trajectory of the standards and competencies that guide the profession (Hatch et al., 2015).

School counselor beliefs are important to consider now, in proximity to the COVID-19 pandemic, as significant events can influence and impact human beliefs (Epstein, 2003; Fussell, 1996). As the literature review will examine, national events of educational significance have led to changing beliefs and priorities of school counselors, as well as the direction of school counseling services and supports. As student needs have changed in tandem with these events throughout history, so have beliefs of school counselors, about how to best meet these needs through school counseling support services (Lauterbach et al., 2018).

The COVID-19 pandemic is a clear example of a present-day national event of educational significance, and the extent of its impacts on students and educational systems is still unfolding (Kearney & Childs, 2021). High school counselors, who work closely with students holistically to ensure their academic success, are in the unique position of encountering, and thus understanding current adolescent student needs ranging from academic, to social and emotional, to postsecondary preparedness. Given the incomplete data about the emerging needs of students in the COVID-19 era, school counselors may offer valuable insight to student needs in schools (Miller et al., 2018). At the same time, a survey

of 7,000 school counselors deployed by ASCA in October 2020, revealed significant numbers of school counselors have described changes in expectations about their roles within their schools since the onset of COVID-19, including being tasked with new responsibilities not aligned with the ASCA national model, increases in responsibility for Social and Emotional Learning (SEL) implementation, as well as a redistribution of time demands, assignments, and duties (ASCA, 2021a). Table 1 contains additional duties as reported by school counselors within this survey. Such changes in school counselors' roles during COVID-19 may also impact school counselor beliefs about the importance of existing systems of support, such as MTMDSS.

Table 1

School Counselors' Additional Duties Since COVID-19

	All	All Virtual	Hybrid	In-person
Follow-up with students who have not participated in virtual classes	73%	80%	74%	44%
Follow-up with students who have not returned since schools reopened	53%	56%	56%	37%
Attendance/check-ins	47%	55%	45%	31%
Increased responsibility regarding SEL implementation	45%	48%	44%	38%
New/additional duties (before/after school, bus/hall/lunch duty, etc.)	34%	24%	41%	47%
Additional responsibilities related to universal mental or behavioral health screenings	30%	28%	32%	30%
Home visits	20%	25%	17%	12%
New health-related duties (temperature check, etc.)	20%	15%	23%	26%
Substitute teaching	14%	9%	15%	24%
No significant changes	8%	7%	6%	14%
Other	11%	10%	11%	8%

Note. Adapted from ASCA research report: State of the profession 2020 (p.10) by the American School Counselor Association. <https://www.schoolcounselor.org/getmedia/bb23299b-678d-4bce-8863-cfcb55f7df87/2020-State-of-the-Profession.pdf>. Copyright 2021 by the American School Counselor Association. Adapted with permission.

As the COVID-19 pandemic persists and continues to unfold, there is a need for school leaders and the school counseling profession to understand counselor beliefs as a way forward in implementing effective, equitable, and essential supports for California high school students in the COVID-19 era. Research on the beliefs of those directly delivering support services to students is a critical component to understanding whether some, all, or no MTMDSS interventions are essential since COVID-19. Such beliefs also potentially offer insight into the probability of effective implementation of MTMDSS by school counselors (Sink & Yillik-Downer, 2001). Previous studies have explored school counselor beliefs related to earlier iterations of MTSS, such as Response to Intervention (RTI) (Patrikakou et al., 2016). More recent research examined the school counselor knowledge and skills of MTSS frameworks (Olsen et al., 2020), as well as teacher and administrator perceptions of MTSS (Braun et al., 2018; Dulaney et al., 2013). Literature examining high school counselor beliefs on the importance of MTMDSS interventions since the onset of the COVID-19 pandemic, however, is currently unavailable. Consequently, professional school counseling organizations, California Education Code, California public schools/districts, as well as school counselors are recommending and delivering MTSS/MTMDSS frameworks in their pre-pandemic formats, without a body of research to assess the extent to which school counselors consider them important in the COVID-19 era. These gaps in the extant literature indicate a need for research in this area.

Exploring and measuring California high school counselor beliefs on the importance of MTMDSS interventions since the arrival of COVID-19, guides the purpose, research questions, and overall direction of this study. The complexity of the MTMDSS model, with

its multiple tiers, domains, and facets, leaves researchers who are interested in understanding school counselor beliefs on it with expansive terrain to explore. This study took the first steps of measuring high school counselor beliefs on the importance of MTMDSS, by focusing on one of the multiple dimensions that make up the MTMDSS model.

Purpose of the Study

The purpose of this study was to explore and measure California high school counselor beliefs on the importance of MTMDSS (Tier 1) Universal Supports since the onset of the COVID-19 pandemic. It is anticipated that knowledge generated from this inquiry will lead to new insights to inform secondary school counseling support practices in response to evolving student needs since the onset of COVID-19. Furthermore, it is also anticipated that such insights will contribute to the ongoing consideration of MTMDSS, including future and more expansive research, which has implications for individual school counselors, school counseling programs, and ultimately, the school counseling profession.

Research Questions

The research questions (RQs) that were addressed in this study are as follows:

- RQ1: What are California high school counselors' beliefs about the importance of Multi-Tiered, Multi-Domain System of Supports (MTMDSS) (Tier 1) Universal Supports since the onset of the COVID-19 pandemic?
- RQ2: Can these Universal Supports-based beliefs be measured reliably, and is there validity evidence to trust the meaningfulness of the scores generated by the Universal Supports Importance Scale (USIS) instrument?
- RQ3: Which variables, if any, predict/explain these Universal Supports-based beliefs?

Definitions of Terms

The following terms were used throughout this study.

Best Practices

Best practices are “existing practices that already possess a high level of widely-agreed effectiveness” (Hargreaves & Fullan, 2012). The Education Opportunity Association defines best education practices as “the wide range of individual activities, policies, and programmatic approaches to achieve positive changes in student attitudes or academic behaviors” (EOA, 2022).

Competencies

The American School Counselor Association defines competencies as “specific, measurable expectations that are attained while making progress toward a standard” (ASCA, 2019a).

Comprehensive School Counseling

A comprehensive school counseling program is a school counseling program that includes the components of academic development, college and career planning and development, and social and emotional development and is delivered equitably to help all students achieve and succeed. (ASCA, 2019a).

Domains

Domains are “broad areas of knowledge that promote and enhance the learning process” (ASCA, 2019a). As they relate to the ASCA National Model for School Counseling framework, there are three domains that school counselors deliver services to students: academic, social/emotional, and college/career).

School Counseling Curriculum

As defined by ASCA, a school counseling curriculum is a “K-12 course of study presented systematically through structured, developmental classroom, group and individual activities designed to assist students in attaining the ASCA Mindsets & Behaviors for Student Success” (ASCA, 2019a).

School Counseling Model

A school counseling model is a structured framework implemented to plan, deliver, and evaluate school counseling services within educational institutions (Researcher’s definition).

School Counselor

ASCA (2019a, 2023) defines a professional *school counselor* as a “certified/licensed educator who improves student success for all students by implementing comprehensive school counseling services to students.”

Social and Emotional Learning (SEL)

The Collaborative for Academic, Social, and Emotional Learning (CASEL) define SEL as “a process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions” (CASEL, 2017).

Scope and Limitations of the Study

This study’s research was conducted for the purpose of fulfilling dissertation requirements for the Doctor of Education program at San José State University and took place over the course of one semester. The study’s finite window of time, along with the

researcher's limited resources, presented limitations to the study's scope. Although the researcher aspires to apply findings to subsequent research moving forward, this study is limited to these primary parameters and purposes. Additional discussion of this study's scope and limitations will take place in Chapter Three and Chapter Five.

Assumptions, Background, and Role of the Researcher in the Study

I, the researcher of this study, am closely connected with the problem that this study explored. I am a veteran high school counselor with twenty years of experience in public high school counseling in the Bay Area of California. I am also an educational leader, serving as the Counseling Coordinator at my current school, which is a generously resourced, high performing public institution within Silicon Valley. As a member of ASCA and CASC, I hold assumptions that the recommendations of these professional organizations, as well as the ASCA National Model for School Counseling, are grounded in research and professional best practices, and are vital to the legitimacy and value of the school counseling profession. At the same time, I also think critical review and ongoing research on endorsed best practices and frameworks is essential to ensure that they remain relevant, effective, and accessible to the practitioners doing the challenging and critical work of supporting the success of youth in schools.

Throughout the span of my career, I have advocated for social justice within my institutions, and believe that equity in schools, and in particular, school counseling, is a priority of practice for the profession. Like many educators, the COVID-19 pandemic has been an eye-opening experience for me. I have experienced a profound shift toward equity dialogue and action on a national scale, closer to home in California, as well as within my

small school district. For me, the COVID-19 era has also been a time of ongoing growth, as I have embarked on this doctoral journey within a highly social-justice oriented program at San José State University, learning with and from bold voices and fierce change agents. These experiences, during this period of historical significance, have undoubtedly impacted my beliefs, which have in turn, deepened my commitment to disrupt systems that perpetuate inequity within public schools. It is through this experience and evolving system of beliefs, that MTSS/MTMDSS have become increasingly compelling frameworks to my professional practice, and studying counselor beliefs on these frameworks has advanced to the forefront of my research aspirations.

Admittedly, my experience in working with MTMDSS is emerging, as this framework is relatively new to the profession, and the district in which I work is only initially engaging in the application of MTSS to its student services holistically.

As I have set out to measure California high school counselors' beliefs about the importance of MTMDSS since the onset of the COVID-19 pandemic, I recognize that it is critical to consistently consider how my own positionality may have factored into my research goals, methods, and decisions throughout this study. Further, I acknowledge that my interpretation and inferences of my findings will be inextricably linked to my own experiences with school counseling throughout the pandemic, as well as my connection to a profession that I hope will be served by this research.

Chapter Two: Literature Review

This review included an analysis of extant literature on school counseling systems of support across five topic areas. First, the relationship between national events of educational significance, school counselor beliefs, and changes in school counseling supports over time was explored. This topic area examined, in depth, three specific models of student support that have evolved over time and in connection with significant events and school counselor beliefs: (1) the ASCA National Model for School Counseling, (2) Multi-Tiered System of Supports (MTSS), and (3) Multi-Tiered, Multi-Domain System of Supports (MTMDSS). The second topic area explored the impact of the COVID-19 pandemic on student supports needs. The recommendation and utilization of MTSS/MTMDSS as a school counseling support during/since the COVID-19 pandemic was captured in the third topic area. School counselor beliefs and behavior were discussed in the fourth topic area. Finally, school counselor beliefs about MTSS/MTMDSS frameworks were explored in the fifth topic area. A summary of gaps in the literature and opportunities for research conclude this chapter.

National Events of Educational Significance, Beliefs, and School Counseling Supports

There is abundant literature demonstrating that national events of educational significance and beliefs have influenced the direction of school counseling supports. The literature revealed ample evidence of significant events and school counselor beliefs corresponding with changes in the trajectory of school counseling supports in the United States (Lauterbach et al., 2018). Thorough examination of the historical arc of the school counseling profession illustrates the connection between events of significance, school counselor beliefs, and the changing landscape of school counseling supports.

School counseling began in its initial form in the early 1900's, first rooted in guiding students in their work options and choices to address concerns around employment prior to the industrial revolution (Aubrey, 1977). Toward the start of the 20th Century, the role of the school counselor was to provide students with vocational guidance, focused on the transition from school to the workforce (Lambie & Williamson, 2004). This is where the original title, "guidance counselor" was coined. In its earliest forms, the counselor's role of support was strictly vocational guidance.

Although the role was initially limited to a singular domain of support, the emergence of cognitive development, psychological theory, and humanistic movements of the 1920's, 1930's, and 1940's opened the door for counselors to provide student-centered support related to personal needs within schools (Lambie & Williamson, 2004; Williams & Lair, 1991). In the late 1920's-1930's, a mental health movement led to the inclusion of training and services focused on more personal challenges and developmental aspects (Gladding, 2013). John Dewey's introduction of the cognitive development movement in the 1920's, and the "Father of Counseling", Carl Roger's 1940's book, *Counseling and Psychotherapy: New Concepts in Practice*, had a significant impact on guidance counselors expanding services beyond vocational support and into social and emotional support (Lambie & Williamson, 2004). These changes expanded the scope of the role and contributed to the rising interest in the growing profession (Blake, 2020).

The late 1950's brought about increased funding for school counselors in public schools in response to the launch of Sputnik and the subsequent National Defense Education Act. As national funding increased, so did the number of school counselors employed to support

students (Blake, 2020). Between 1958-1965, the number of school counselors in the U.S. more than doubled (Shertzer & Stone, 1981). This funding increased the support for, and the prominence of, school counselors. At the same time, while the number of school counselors grew, so too did the variance in their responsibilities. The supports that school counselors delivered were dictated by school leaders, who often viewed them as ancillary and assigned them to uncovered tasks and administrative duties (Stewart, 1959, as cited in Blake, 2020). Additionally, there were a wide range of approaches to the role circulating in the field and thus, counselors were performing vastly different duties without standards to guide their support practices (Aubrey, 1977).

A wave of professionalization rose in the 1980's, leading to early counselor education standards and the accreditation body, The Counsel for Accreditation of Counseling and Related Educational Programs (CACREP) (Schweiger et al., 2007). CACREP impacted the ways in which school counselors were trained in counselor education programs and introduced some level of consistency of quality and content in master's degree programs and credentialing (Lambie & Williamson, 2004). It was at this time that counselor beliefs related to the need for cohesion began coming into focus through mobilization. Professional school counselors joined forces with the American Counselor Association and chartered the American School Counselor Association (ASCA), which gave increasing visibility, legitimacy, and direction to the profession (Gladding, 2013). The professionalization of school counseling also brought about the rebranding of the antiquated, undefined, and misunderstood "guidance counselor" title, replacing it with "school counselor."

ASCA's movement to legitimize the school counseling profession coincided historically with a defining moment in U.S. educational policy. The late 1990's and early 2000's brought the standardization and accountability movement in U.S. education. This movement had profound influence on K-12 education broadly. It also influenced the beliefs of ASCA members, who, in response, saw a need for a set of national standards and a standardized school counseling model that could measure the outcomes and impact of school counseling programs on student development and achievement (Campbell & Dahir, 1997; Hatch & Chen-Hayes, 2008). School counselors, seeking acceptance as professional educators, as well as full integration into the public school system, began exploring how to provide comprehensive and data-driven school counseling services in a standardized manner to resemble the standardized school curriculum of the accountability era (Baker, 2011). ASCA began exploring the standardization of the profession on a national scale, which gave rise to the idea of creating a set of national standards for school counseling. The process of developing the standards was guided and informed in part by the beliefs of its members.

In 1997, ASCA created its initial set of school counseling standards (Campbell & Dahir, 1997). The inaugural set of national school counseling standards was developed through a combination of historical and theoretical examination, and with the input of school counselor attitudes and beliefs. In 1995, ASCA deployed a survey instrument (developed with the assistance of the American College Testing Program [ACT]) to 2000 members to assess beliefs about the need for standardization, as well as identification of standards, priorities, and best practices. Data collection and analysis revealed that the school counselor

participants overwhelmingly believed in the need for a set of national standards (Campbell & Dahir, 1997).

The 2001 No Child Left Behind (NCLB) Act placed an increased emphasis on results-based education that was focused on standards, student achievement, and accountability through standardized testing. NCLB further incentivized and required the standardized measurement of academic achievement (Buckner-Capone, 2019). In response to this event, ASCA set out to create a national school counseling model that, like the rest of public education, was guided by standards and competencies-based curriculum, as well as data-supported outcomes measurement. Once again, ASCA sought the beliefs of school counselors in the development of this model. ASCA embarked on a quantitative study to begin research for the new model. The design of this study focused intentionally on the beliefs of school counselors about the importance of prospective components of the then, in-development ASCA National Model for School Counseling. The study drew from the theoretical underpinnings of Ajzen, Pajares, and Yero to support the importance of developing their survey instrument around the construct of school counselor beliefs. Ajzen's Theory of Planned Behavior (1980) draws causal links between humans' attitudes, beliefs, and behavior (Hatch & Chen-Hayes, 2008). Hatch and Chen-Hayes (2008) also noted that Pajares (1992) suggested that studying beliefs should be a focus in educational research. Further, Yero (2015) found that what educators believe about a new program or initiative can influence the impact of its implementation and success. This literature supported the use of school counselor beliefs as a construct to guide the development of the instrumentation used (Hatch & Chen-Hayes, 2008).

Hatch and Chen-Hayes developed the School Counseling Program Component Scale (SCPCS) which aimed to measure school counselor beliefs about the proposed components of the forthcoming ASCA National Model. The study first sought to understand school counselor beliefs through focus groups. Focus group feedback informed the development of the SCPCS items. The SCPCS was deployed to 3,000 school counselors throughout the U.S. The outcomes of this beliefs scale served as a primary data source in the development and finalization of the inaugural ASCA National Model for School Counseling launch in 2003 (Hatch & Chen-Hayes, 2008).

Since its inception, the ASCA National Model has been influenced by emerging events of educational significance and school counselor beliefs. The SCPCS has been redeployed to re-evaluate how those beliefs have evolved over time and with changes in education (Hatch et al., 2015). Now in its 4th edition, the ASCA National Model (derived in part from school counselor beliefs) has had a profound impact on the field, as a national and standardized framework guiding school counselors on how to best support student success (ASCA, 2019a).

The ASCA National Model for School Counseling

ASCA became increasingly prominent in the early 2000's, when it introduced the National Model for School Counseling, which advanced professional standards on school counseling supports (Hatch et al., 2015). The ASCA National Model placed emphasis on standardization of delivery and accountability through data-driven measurement to quantify the benefits of school counseling programs (Poynton & Carey, 2006). Since its inception in 2003, the ASCA National Model for School Counseling has helped move school counseling

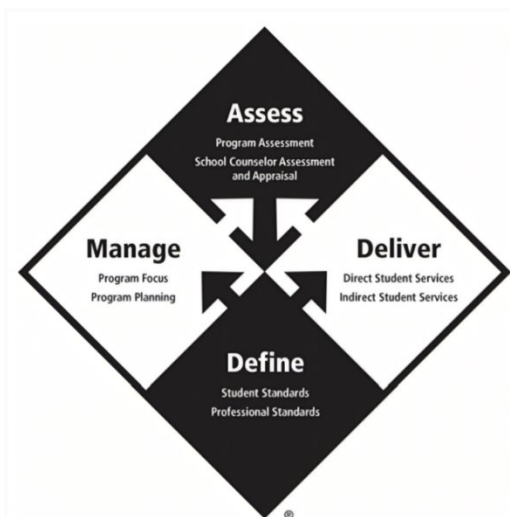
in the U.S. from a reactive service provided to some students, to a proactive, preventative, curriculum-based program that serves all students by providing a framework of components for school counseling programs throughout the U.S. to follow (ASCA, 2019a; Barna et al., 2014). Although the model allows for flexibility, the intention is to provide standardization, and the framework calibrates programs throughout the country by providing a template of main program components, standards and sub standards for curriculum, and competency domains to guide school counselors in the development of their schools' support programs (ASCA, 2019a).

The literature revealed that the ASCA National Model (2019) has undergone three updates since 2003, in response to the changing landscape of education as well as changing needs of the profession. In its current (4th) edition, the model's framework is comprised of four main quadrants or components: *Define*, *Manage*, *Deliver*, and *Assess* (see Figure 1). The *Define* component outlines three sets of student and professional standards (mindset, behavior, ethical) to help school counselors develop, implement, and assess their programs to improve student outcomes. From the beginning to its current iteration, the national model has maintained the recommendation that school counselors focus their grade-level, competency-based curriculum across three main domains of student development: (1) academic development, (2) college & career planning and development, and (3) social-emotional development (ASCA, 2019a; Campbell & Dahir, 1997). The *Manage* component focuses on designing and implementing a results-based program, which includes the program's focus as well as curriculum development and overall programmatic structure. The *Deliver* component guides school counseling programs on delivering direct and indirect student services, which

is where 80% of a school counselor's time should be spent, according to ASCA. Lastly, the *Assess* component focuses on how school counselors should regularly evaluate school counseling programs to determine effectiveness and identify areas for growth and improvement (ASCA, 2019a).

Figure 1

The ASCA National Model Program Components



Note. From ASCA National Model: A Framework for School Counseling Programs (4th ed.) (p. v), by the American School Counselor Association, 2019. Copyright 2019 by the American School Counselor Association. Reprinted with permission.

One of the defining characteristics of the ASCA National Model is that it is designed so that school counselors can deliver a comprehensive school counseling curriculum proactively and preventatively, that reaches all students in all domains of focus, even when school counselors have large student caseloads (ASCA recommends a student-to-counselor ratio of 250:1). This contrasts with a more reactive, problem-response model that only supports the students who emerge with the most pressing problematic needs in schools. The model's goal of supporting all students is achieved through the design of classroom-delivered core

curriculum (as opposed to delivering individually). By reaching 100% of students through grade-level, competency-based core curriculum delivered in classroom settings, the school counselor proactively reaches all students, while reserving smaller group and individual supports for students who need additional support (ASCA, 2019a). This format of delivery for school counseling supports with varying degrees of intensity and individualization is similar and complementary to schoolwide, multi-tiered support systems that emerged in education around the same time as the ASCA National Model.

Multi-Tiered System of Supports (MTSS)

Multi-Tiered System of Supports (MTSS) is an intervention framework used in schools to address academic concerns and behavioral issues by utilizing both prevention and intervention strategies (Sink, 2016; Sugai & Horner, 2009). MTSS programs are designed to offer a systemic, data-driven, equity-oriented approach to providing academic and behavioral supports to students by deploying varying degrees of intervention intensity, based on student need (Belser et al., 2016). MTSS emerged in the early 2000's as a successor to earlier multi-tiered frameworks, which, like other supports explored throughout this literature review, evolved over time and in response to events of educational significance.

Tiered instruction originally entered educational praxis through the field of special education (Sailor et al., 2021). In response to the 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA), the original multi-tiered educational framework known as *Response to Intervention (RTI)* was introduced in school settings. RTI introduced the concept of a multi-tiered system of academic supports for struggling students with varying levels of need (multi-tiered intervention delivery structure is explained later in this chapter) (Zirkel &

Thomas, 2010). RTI's original emphasis was to promote equity in special education by reducing the number of unnecessary referrals (Johnson et al., 2006). Students moved through the tiers of support progressively depending on severity of need and their response (or lack thereof) to broader, schoolwide supports. RTI called for the ongoing use of data collection and analysis to assist in the identification of students requiring more intensive interventions (Patrikakou et al., 2016). A later update of RTI, RtI2, was more expansive and inclusive of students beyond the scope of special education.

While RTI focused on academic support interventions, another support model, *Positive Behavior Interventions and Supports (PBIS)* focused on behavioral supports. PBIS utilized the same multi-tiered intervention structure as RTI, while focusing solely on behavioral supports. PBIS supported the behavior of students and staff with a focus on social competence and decision making and was data informed. PBIS, although later used with all students, was initially intended for students with disabilities (Sink, 2016).

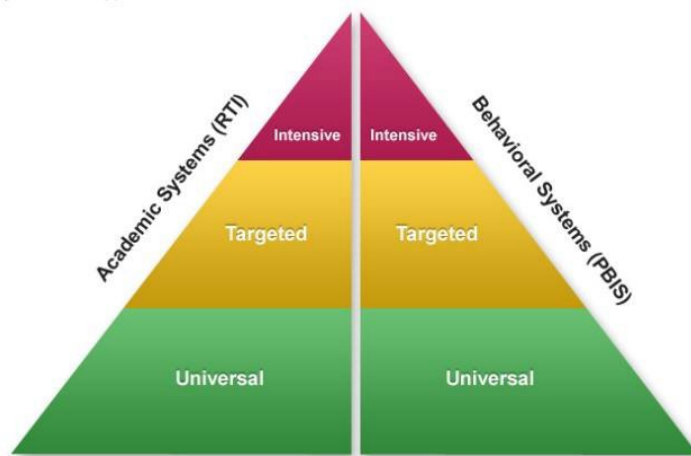
RTI and PBIS became increasingly prevalent in public education settings in the early 2000's, around the same time that the *Social and Emotional Learning (SEL)* movement in education was gaining momentum. SEL encouraged schools to integrate social and interpersonal skill building, such as healthy identity development, managing emotions, empathy development, relationship building, and responsible decision making (CASEL, 2017). School counselors, who included social-emotional development as one of the three main domains of the new ASCA National Model, were already delivering social-emotional development curriculum to students, although it was often regarded as non-essential to academic success or auxiliary to the curriculum of schools and school districts (McCombs,

2007; Van Velsor, 2009). SEL became increasingly interwoven into educational curriculum, including school counseling services, as NCLB was replaced by the 2015 passage of the Every Student Succeeds Act (ESSA), which explicitly called for SEL integration in school curricula (Braun et al., 2018).

As SEL came increasingly into focus, a further expanded and comprehensive framework of tiered supports emerged. Recognizing the need for both academic and behavioral support (including SEL) in instruction, the two existing multi-tiered instructional support models (RTI and PBIS) were combined into a single framework: MTSS (Braun et al., 2018). MTSS integrated both the domains of academic and behavioral support within classroom curriculum at each tier of intervention (Greene, 2019). Figure 2 demonstrates how the MTSS framework integrates RTI and PBIS.

Figure 2

MTSS Pyramid



Note. From “Multi-Tier System of Supports” by Idaho Parents Unlimited, 2023 <https://ipulidaho.org/education-base/91-multi-tier-system-of-supports-rti/108-multi-tier-system-of-supports>. Copyright 2023 by Idaho Parents Unlimited. Reprinted with permission.

MTSS supports students at varying degrees to ensure equitable opportunities for success (Greene, 2019). This system can be applied to academic development holistically, specific subject areas, social-emotional development/learning, or other developmental aspects. MTSS also provides a data-driven process to help educators identify students based on their level of academic and behavioral need (Sugai & Horner, 2009).

McIntosh and Goodman (2016) defined MTSS as “an approach that can help to connect existing efforts and systems across domains and integrate the support that is already provided to students into a seamless whole” (p. 4). Thus, schools utilize the resources that they have in an allocated method and distribute them in an equitable way to ensure that the students whose needs are highest receive the most intensive and individualized services and interventions. Within a three-tiered structure, interventions become more individualized (to a smaller percentage of the student population) as they move up the tiers. Students also move up in the tiers based on how they respond to the broader interventions provided in the lower tier(s).

Tier 1 is considered a *Universal Supports* intervention within a school’s student body. In other words, this is a level of support or intervention that all students in the school receive. Tier 1 supports often help reveal or identify academic problems within the student population as a whole, as well as identify students with more specific needs. This level of support is delivered to all students, most often in a uniform manner. Efficacy levels for this tier should remain at 80% to be considered effective (McCook, 2006, as cited in Greene, 2019). The 80% threshold indicates that 80% of the student body should have their needs met through Tier 1 Universal Supports interventions. If fewer than 80% of the overall student

population's needs are met in a particular intervention area (academic or behavioral), then Tier 1 interventions require revision (Braun et al., 2018).

Tier 2 interventions are targeted to students who do not respond to Tier 1. Although Tier 1 may still benefit a higher-needs student, if their needs exceed what Tier 1 can provide, additional support must be offered. This tier is more individualized than Tier 1 and should only be necessary for between 10-15% of the overall student population who do not respond to the first tier. Thus, Tier 2 reserves more time and resource-intensive interventions for students with higher needs (Greene, 2019).

Tier 3 of MTSS is provided to only those students with the highest needs that were unable to be met through Tier 1 or Tier 2. These supports are highly intensive, highly individualized, and require the most time and resources. Because of this, they are often facilitated by specialists such as school psychologists, special education case managers, speech-language pathologists, therapists, and school counselors. The number of students that should require these services should be small; at maximum, 5% of the student body. Students in this tier (as well as Tier 2), depending on their specific area of need, may be able to be lowered in the tiers if the intensive supports provide the opportunity to progress to the level of the majority population in the lower tier(s). That is, tier placement is also fluid, allowing for tier movement based on areas of need. If specialists facilitating these interventions also are required to facilitate supports in Tier 1 and Tier 2, it is critical to the effectiveness of the program that they only provide Tier 3 services to a fraction of their overall caseload to ensure equitable support (Greene, 2019). This is especially salient for high school counselors who often work with large student caseloads.

MTSS has been gaining ground in public education throughout recent decades. As previously mentioned, the 2015 signing into law of ESSA legitimized and institutionalized SEL as a core component of educational standards and curriculum. It also called for Multi-Tiered System of Supports in public education (Braun et al., 2018). Many states have since instituted statewide MTSS models, including California.

MTSS in California. MTSS has been steadily expanding in school districts throughout the U.S. and within California over the last decade (Sailor et al., 2021). The California Department of Education (CDE) has embraced MTSS as an essential framework and has adopted a statewide MTSS model. The CDE's (2022) vision statement for California's statewide MTSS initiative states:

California's vast and complex PreK-12 educational system requires a multi-faceted approach that is scalable and sustainable. The national transition from the No Child Left Behind Legislation to the Every Child Succeeds Act (ESSA) provides the context for weaving together multiple resources and supports to enhance student learning into a comprehensive Multi-Tiered System of Support (MTSS) framework to improve student outcomes based on the California Way. The California Department of Education's (CDE) vision of 'one coherent system of education' offers an opportunity to build the foundation for educational excellence. This unification effort addresses barriers to marginalized and fragmented support systems. The road to every child succeeding involves a statewide transformation that: (1) enhances equitable access to opportunity, (2) develops the whole child, (3) closes the achievement gap for all students. Through the use of Implementation Science, Universal Design for Learning, and the Whole Child approach, among other evidence-based interventions, MTSS affords a full range of academic, behavioral, and social support for all students to achieve.

Recent state legislation has further fueled MTSS prominence within school districts throughout California. California Assembly Bill (AB) 104 (Chapter 13, Statutes of 2015), Senate Bill 828 (Chapter 29, Statutes of 2016), the Budget Act of 2018 (appropriated by AB 1808, Chapter 32, Statutes of 2018) and Senate Bill 840 (Chapter 29, Statutes of 2018) have

funded a “scaling-up” of MTSS (CA SUMS) to encourage school districts throughout the state to “establish and align school-wide, data-driven systems of academic and behavioral supports to more effectively meet the needs of California’s diverse learners in the most inclusive environment” (CDE, 2022; OCDE, 2020). The total of all funding phases to-date is \$95,000,000 (CDE, 2022). Further, California’s MTSS model is designed to align with California’s Eight State Priorities, Local Control Funding Formula (LCFF), and Local Control Accountability Plan (LCAP), which allows for California MTSS to be the “driver” of a statewide system of support (OCDE, 2020). In the fall of 2022, California’s legislature passed Assembly Bill (AB) 2508, with the governor signing it into law shortly thereafter. California Education Code (§49600, 1987/2022) “require[s] educational counseling to also include certain postsecondary services” and calls on public school counseling programs throughout California to “work within multi-tiered systems of support that use multiple data sources to monitor and improve pupil behavior, attendance, engagement, and achievement.”

School Counseling and MTSS. As MTSS has become increasingly prevalent in California public schools, school counselors have considered how to align their curriculum, standards, and competencies with MTSS. The ASCA National Model for School Counseling provides a framework for school counselors to support students through the implementation of MTSS (Hatch et al., 2019). ASCA is a strong advocate for the use of MTSS, since it revised its position statement on RTI, to add MTSS (Patrikakou et al., 2016). Thus, MTSS is currently a central intervention theme within the ASCA National Model. The (2018) ASCA position statement on MTSS states:

School counselors align their work with MTSS through the implementation of a school counseling program designed to affect student development in the academic

domain (achievement), the career domain (career exploration and development) and the social/emotional domain (behavior). . .MTSS offers school counselors opportunities to have a lasting impact on student academic success and behavior development while integrating a comprehensive school counseling program (Ziomek-Daigle et al., 2016). The application of MTSS aligns with the role of school counseling at any grade level and can be used across multiple domains (Hatch, 2018; Hatch et al., 2019) such as academic, college/career and/or social/emotional development, based on the ASCA National Model.

There is considerable overlap between the ASCA National Model and MTSS frameworks (Ziomek-Daigle et al., 2016). Since MTSS mirrors the structure outlined in the ASCA National Model in which all students receive the benefits of a school counseling program (Tier 1), with more targeted interventions for students who need them (Tier 2), and more intensive interventions for a small segment of the student population (Tier 3), schools who implement a school counseling model that is aligned with or similar to the ASCA National Model are at an advantage when incorporating MTSS (ASCA, 2019a; Belser et al., 2016). The ASCA National model relies on curriculum classroom lessons as a main mode of counseling core curriculum delivery (Ziomek-Daigle et al., 2016). Even with significantly larger caseloads than ASCA's 250:1 recommendation, school counseling programs can deliver Tier 1 interventions to large numbers of students through classroom curriculum lessons (ASCA, 2019a). These larger formats enable school counselors to deliver Tier 1 services effectively and efficiently, while preventing counselors from spending too much time reacting to small numbers of individual needs. This approach also allows school counselors to address more individualized needs systematically (Sink, 2016).

MTSS is intended to be a schoolwide system, drawing from the contributions of administrators, teachers, counselors, staff, families, and the community (Belser et al., 2016; Bohanon et al., 2021; Sailor et al., 2021). The ASCA National Model enables and encourages

school counseling programs to integrate with the goals and services of the school, as opposed to operating in isolation (ASCA, 2019a; Belser et al., 2016). In collaboration with administration, teachers, and families, school counseling programs following the ASCA National Model, support a school's MTSS mission by working proactively and systemically to support students holistically across academic and behavioral domains of development.

As previously stated, MTSS focuses on the two domains of (1) academic support and (2) behavioral support, while the ASCA National Model for School Counseling recommends that school counseling programs address three domains: (1) academic development, (2) social-emotional development, and (3) postsecondary planning (college/career) development (ASCA, 2019a). To ensure that school counselors include and integrate the additional domain of college and career development when aligning their support services model with a school's MTSS framework, a school counseling-specific iteration of MTSS was developed.

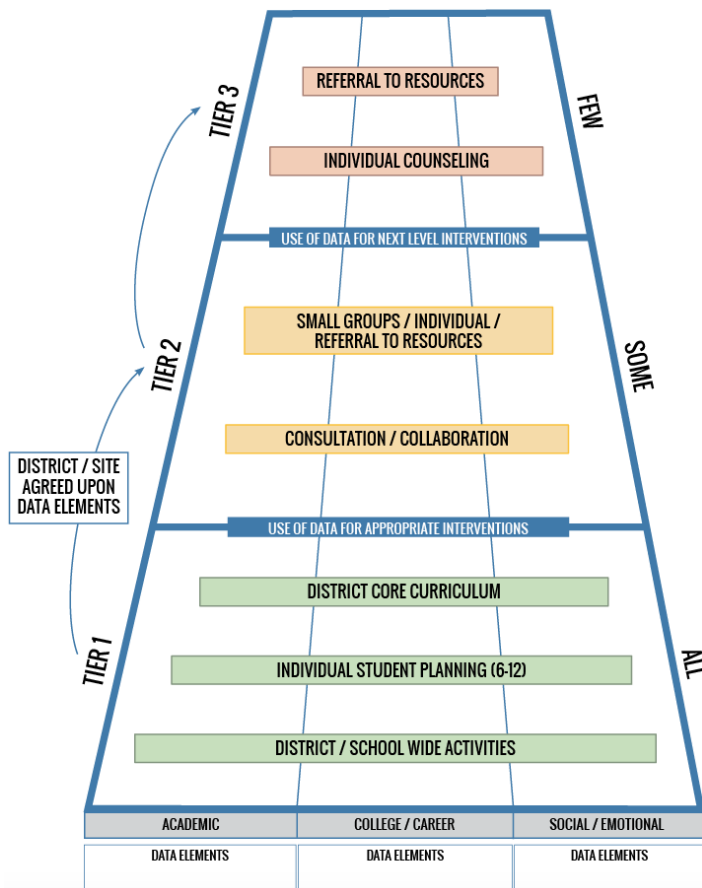
Multi-Tiered, Multi-Domain System of Supports (MTMDSS)

In alignment with MTSS, *Multi-Tiered, Multi-Domain System of Supports (MTMDSS)* operates within the same three-tier intervention structure and emphasizes data-driven decision making and evidence-based practices in core instruction to address the needs of all students (Hatch et al., 2019). As previously outlined, MTSS focuses on the two domains of academic and behavioral support. Because school counselors focus on three domains: (1) academic, (2) college/career, and (3) social-emotional development, MTMDSS was created to provide a supplement to the MTSS model by delivering interventions in all three domains across all three tiers (Geiger & Oehrtman, 2020). The MTMDSS model also provides

overarching types or facets of interventions that counselors should deliver within each tier, across all three domains. See Figure 3 for the MTMDSS pyramid (Hatch et al., 2019).

Figure 3

Multi-Tiered, Multi-Domain System of Supports (MTMDSS) Pyramid



Note. From “Multi-Tiered, Multi-Domain System of Supports, by T. Hatch, 2017 (<https://www.hatchingresults.com/blog/2017/3/multi-tiered-multi-domain-system-of-supports-by-trish-hatch-phd>). Copyright 2017 by T. Hatch and 2023 by Hatching Results. Reprinted with permission.

Tier 1 or *Universal Supports* calls on counselors to provide support activities for all students (100%) in a school (Geiger & Oehrtman, 2020; Hatch et al., 2019; Sailor et al., 2021). This is done through the facets of a school counseling core curriculum, individual

student planning, and district/schoolwide events and activities (Hatch et al., 2019). This study refers to these facets as the *facets of practice*. A *school counseling curriculum* within the ASCA National Model framework is a course of study presented systematically through structured and developmentally focused classroom, group, and individual activities and lessons (ASCA, 2019a). This curriculum is designed to meet the standards and competency goals of the school counseling program across all three domains. *Individualized planning* involves creating an Individual Learning Plan (ILP), sometimes referred to as a “4-year plan”. This plan helps the student set goals and benchmarks to ensure that they are successful each year and on track for graduation and postsecondary pathways (Gysbers, 2008). *Schoolwide events* are events that all students attend. These are planned by school counselors and/or the school/school district to help meet school counseling program goals, or broader, schoolwide goals. These also include *parent education events* (Hatch et al., 2019).

Tier 1/Universal Supports are intended to be data-driven, comprehensive, and preventative in nature. Universal Supports set up a baseline of support for all students. Universal Supports need to be continuously evaluated, because the subsequent tiers of support should only need to serve between 5-20% of the student population. If more than 20% of students need interventions beyond those provided in Tier 1, a school counseling program needs to reevaluate its Universal Supports so that they are more effective in meeting the needs of more students (Hatch et al., 2019; McCook, 2006, as cited in Greene, 2019).

Tier 2, or *Targeted Interventions*, provide services to students who are identified as needing additional support beyond Tier 1 or who qualify for additional support or opportunities based on performance or demographic indicators. Delivery of Tier 2 takes

place through direct and indirect services. Direct interventions involve short-term, solution-focused, small group counseling, or individual counseling (Hatch et al., 2019). Indirect interventions involve consultation and collaboration with school staff/faculty and family, referrals to resources within or outside of the school, and progress monitoring (Geiger & Oehrtman, 2020). Only 20% of the total student body should require this level of intervention. Tier 2 provides a unique equity opportunity, in that it allows school counselors to proactively identify students through the collection and analysis of data, such as deficiency data to decipher students who qualify and would benefit from additional support, as well as opportunity data, which allows school counselors to use an assets-based approach to identify students who might qualify for unique opportunities (such as college readiness programs, scholarships, or mentor programs) (Geiger & Oehrtman, 2020; Hatch et al., 2019).

Tier 3 or *Intensive Interventions* are highly individualized interventions often in response to crisis or emergency situations that are not addressed by the supports in Tier 1 or Tier 2 (Braun et al., 2018). These interventions are delivered through individual counseling or referrals. When Tier 1 and Tier 2 are implemented adequately, Tier 3 should only be required for between 5-10% of the student population. Like Tier 2, Tier 3 interventions are intended to be short-term and solution focused. When a school's Tier 3 supports cannot effectively resolve or address students' needs, Tier 3 calls on school counselors to make appropriate referrals for supports/interventions outside of the school/school district (Hatch et al., 2019).

MTMDSS is a relatively new model to assist school counselors in the delivery of multi-tiered support systems. The timing of its release came in proximity to another event of educational significance that involved unprecedented disruption to schools across the country

and within California. This event's impact on student support needs is currently unfolding and carries implications for the importance of systems of support, such as MTSS/MTMDSS, that were designed before its arrival.

The Impact of COVID-19 on Student Support Needs

The impact of the COVID-19 pandemic on student support needs is currently emerging within the limited and evolving available literature. Throughout the COVID-19 pandemic, California high school students have endured varying degrees of uncertainty, hardship, and trauma (AAP, 2021; Minkos & Gelbar, 2020; Murata et al., 2021; Watson et al., 2022). Personal health fears, economic instability, social isolation, and social injustice and unrest have all been contributing factors influencing the experiences of California high school students throughout the pandemic, with the most significant impact on students from disadvantaged or marginalized backgrounds (Azar et al., 2021; Sullivan et al., 2020).

A Spotlight on Inequities

The COVID-19 pandemic forced schools across the U.S. and within California to close to in-person instruction. These closures took students out of classrooms and placed them into their homes, requiring them to attend school in vastly diverse settings (Savitz-Romer et al., 2021). This interruption to traditional learning formats highlighted and exacerbated preexisting inequities within public education (Sullivan et al., 2020). Inequitable access to instruction, academic and personal supports, and other resources while in distance learning, as well as abruptly discontinued basic needs services that schools normally provide, all disproportionately affected disadvantaged students and under-resourced schools in California

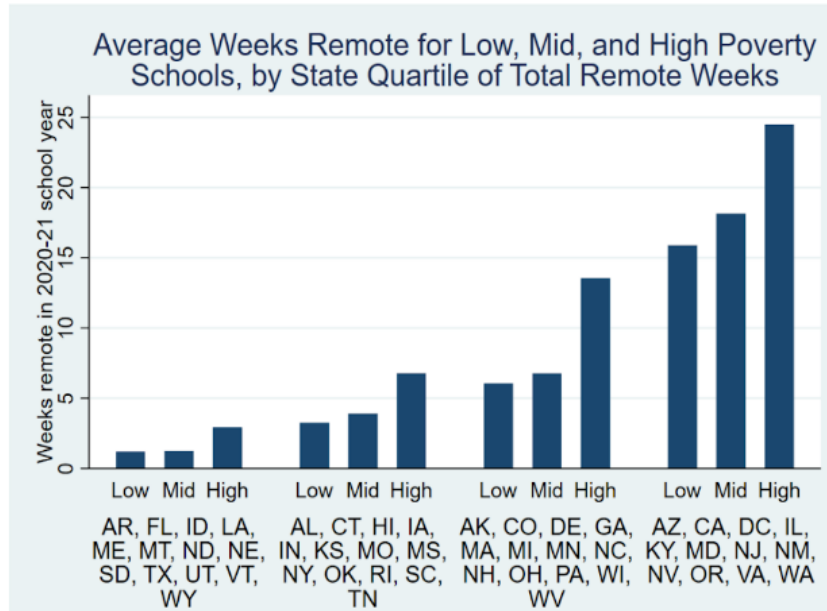
and ultimately, threatened students' academic success (Garcia & Weiss, 2020; Goldhaber et al., 2022; Jack et al., 2021).

U.S. public education has long been criticized for its inequities, yet public school campuses also provide some level of equalizing when students are on campus (Downey et al., 2004). When students are on campus, they often have access to similar instruction, similar materials, and similar technology as their peers. The sudden transition to distance learning in March 2020 required students to rely on the technology, environment, nourishment, supervision, and support that was available to them in their homes (Pincus et al., 2020; Savitz-Romer et al., 2021).

As the pandemic persisted, uncertainty about the risks of the spread of COVID-19 in schools forced school district and state leaders to consider whether to remain in distance learning or return to in-person instruction (Jack et al., 2021). California was one state who opted to remain in distance learning for a longer period of the 2020-2021 school year (Goldhaber et al., 2022). Emerging research has revealed a correlation between the amount of time spent in distance learning and declines in academic achievement, with the most profound impact on students of color and/or students attending high-poverty schools (Goldhaber et al., 2022; Jack et al., 2021). Figure 4 demonstrates differences in remote instruction by school poverty status and state (Goldhaber et al., 2022).

Figure 4

Differences in Remote Instruction by School Poverty Status and State

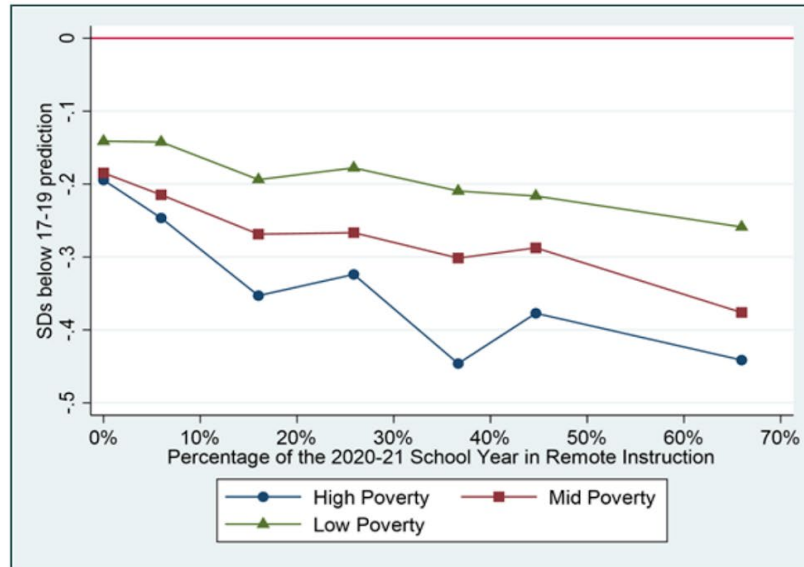


Note. Weeks of remote instruction are derived from American Enterprise Institute’s Return to Learn Tracker. Data on school poverty come from information on the percent of students eligible for free or reduced-price lunch (FRPL) in the Common Core Data from 2019-20, or the percentage of students directly certified in the National School Lunch Program if a state did not provide a count of FRPL students. From “The Consequences of Remote and Hybrid Instruction During the Pandemic” by D. Goldhaber, T. Kane, A. McEachin, E. Morton, T. Patterson, and D. Staiger, 2022, NBER Working Paper No. 30010 (https://www.nber.org/system/files/working_papers/w30010/w30010.pdf). Copyright 2022 by D. Goldhaber, T. Kane, A. McEachin, E. Morton, T. Patterson, and D. Staiger. Reprinted with permission.

Figure 5 demonstrates pandemic achievement effects in math by remote schooling and school poverty (Goldhaber et al., 2022). Earlier research suggests that differences in academic achievement widen during school breaks and contribute to achievement gaps (Alexander et al., 2007). This points to the likelihood that such disparities may be even more pronounced as a result of extended pandemic school closures, threatening overall student success and well-being and generating a range of new student needs in schools (Minkos & Gelbar, 2020).

Figure 5

Pandemic Achievement Effects by Remote Schooling and Poverty, Math



Note. The vertical axis represents the difference between mean fall 2021 achievement and expected achievement based on pre-pandemic growth model estimates. The horizontal axis is the percentage of the 2020-21 school year that a school was in remote instruction. From “The Consequences of Remote and Hybrid Instruction During the Pandemic” by D. Goldhaber, T. Kane, A. McEachin, E. Morton, T. Patterson, and D. Staiger, 2022, NBER Working Paper No. 30010 (https://www.nber.org/system/files/working_papers/w30010/w30010.pdf). Copyright 2022 by D. Goldhaber, T. Kane, A. McEachin, E. Morton, T. Patterson, and D. Staiger. Reprinted with permission.

Emerging Student Needs

California students across socio-economic and ethnic backgrounds have endured varying degrees of uncertainty, hardship, and trauma throughout the COVID-19 pandemic, contributing to an evolving range of student needs (AAP, 2021; Minkos & Gelbar, 2020; Murata et al., 2021; Watson et al., 2022). As Goldhaber et al. (2022) and Jack et al. (2021) have indicated, academic achievement declines suggest a likelihood of emerging academic needs as students have returned to schools for in-person learning.

Pre-pandemic research suggests that the effects of distance learning and the social isolation that accompanied it, could also have short-term and long-term consequences on students' mental health and well-being (Chafouleas & Marcy, 2020). In a 2018 longitudinal study, London and Ingram linked loneliness and depression in students. Further, they found that such loneliness predicted anxiety and depression later in life. Exposure to trauma can have varying impacts depending on duration and levels of intensity (Chafouleas & Marcy, 2020). Chronic stress and trauma are linked to processing deficits, which can present previously unseen behaviors as well as physical and mental health disorders (Swick et al., 2013).

The ultimate degree to which individual students experience and endure trauma throughout COVID-19 is difficult to predict, given that the pandemic is still unfolding. Although the impact of the COVID-19 pandemic on students is yet to be fully understood, available research shows significant numbers of students have reported increases in anxiety, depression, stress, loneliness, chronic absenteeism, and suicidal ideation (AAP, 2021; Gazmararian et al., 2021; Murata et al., 2021). A 2020 study of high school students during the distance learning stage of the pandemic, revealed approximately one third of students reported experiencing anxiety or depression, 43% feeling isolated or lonely, and 50% experiencing high levels of stress regularly (Gazmararian et al., 2021). Further, students from socio-economically disadvantaged families appear to be most vulnerable to trauma throughout the pandemic (Jack et al., 2021). Students from marginalized backgrounds disproportionately experience hardship, stress, anxiety, and depression more regularly and profoundly and are more likely to suffer unmet basic human needs (Capizzi & Bruce, 2021;

Waselewski et al., 2020). Families that struggled with stressors such as financial insecurity, housing instability, food insecurity and limited access to health care pre-pandemic, were likely to experience those stressors intensifying during the pandemic (OECD, 2020). Such stressors relate to physical and social-emotional trauma, including substance abuse, physical abuse and neglect, depression, mental and physical illness, and family deaths (Minkos & Gelbar, 2020). Hardships such as these present potential barriers to student success in school (Pincus et al., 2020).

As secondary schools have returned to in-person instruction, emerging research indicates that students have arrived on high school campuses carrying with them the cumulative effects of the pandemic on their lives (Minkos & Gelbar, 2020). Given the emerging impact of the pandemic on student support needs described in this literature review, school counselors in California have turned to the state department of education and professional school counseling organizations for recommendations on best practices for supporting students equitably. One prominent recommendation for school counselors is a Multi-Tiered System of Supports.

MTSS/MTMDSS as a Recommended School Counseling Response to COVID-19

As previously explored, multi-tiered support systems have been steadily gaining ground throughout the U.S. and within California in recent years, as equity-oriented frameworks to support the needs of all students (Sailor et al., 2021). Throughout the pandemic, professional school counseling organizations have continued to recommend their use by school counselors as a strategy to meet emerging student needs with limited resources. Professional school counseling organizations are known to be a key source of guidance for school counselors in

their practices. In a 2020 ASCA study of its membership, 67-72% of school counselors reported that they sought and trusted professional organization direction in responding to challenges in their roles (ASCA, 2020a). The preeminent professional school counseling organizations at the national and California state levels are ASCA and CASC.

National (ASCA) Recommendations

ASCA has continuously updated its national recommendations for best practices for school counselors and school counseling programs to support students throughout the COVID-19 pandemic. ASCA has reiterated its existing recommendations for organized and collaborative crisis intervention and response to trauma (ASCA, 2019b). ASCA has also restated some of its defining bedrocks of the National Model, citing their increasing relevance and importance mid-pandemic (ASCA, 2019b). For example, ASCA states that non-school counseling duties should be reduced to allow more time for counselors to directly support students (ASCA, 2019a). Further, school counselors should remain focused on all three disciplines of school counseling in times of crisis. Specific to COVID-19, ASCA has acknowledged the traumatic nature of the impact that the pandemic has had on many students' social-emotional development and has reaffirmed their endorsement of trauma-informed practices, social-emotional learning, and MTSS (ASCA, 2020b). As described throughout this literature review, the ASCA National Model delivers these interventions using a multi-tiered service delivery structure which aligns with MTSS/MTMDSS frameworks. In conjunction with the promotion of its National Model, ASCA has explicitly promoted MTSS/MTMDSS in various iterations of its COVID-19 response recommendation literature and updated position statements (ASCA, 2021b).

California (CASC) Recommendations

As revealed previously in this chapter, California is a strong advocate for the use of MTSS to support students. The CDE has engaged in continuous efforts to promote and expand the reach of MTSS frameworks throughout the state (CDE, 2022). Orange County and Butte County have partnered with the CDE in promoting the recommendation of MTSS/MTMDSS for school counselors through a series of county and state level trainings and training modules designed to guide California school counselors in effective implementation of MTSS and MTMDSS (CASC, 2020; CDE, 2022; Hatch et al., 2019; OCDE, 2020). CASC, which is a state charter of ASCA, has reinforced its messaging around MTSS as one of its recommendations for school counselors in ensuring equitable support to varying and emerging student needs. CASC recommends the CDE and OCDE COVID-19 MTSS/MTMDSS resources to its members on its COVID-19 webpages (CASC, 2020).

School Counselor Beliefs and Behavior

As discussed throughout this chapter, school counselor beliefs have played a key role in shaping the direction of school counseling supports throughout the last century, particularly within the last twenty-five years (Hatch & Chen-Hayes, 2008; Hatch et al., 2015). This literature review also revealed that school counselor beliefs about school counseling program components and supports may impact the likelihood of successful implementation (Dahir, 2004; Hatch & Chen-Hayes, 2008; Pérusse et al., 2004; Sink & Yillik-Downer, 2001). Sink and Yillik-Downer (2001) examined 1,033 school counselors' views on comprehensive guidance and counseling programs. The study, which has since been independently assessed to have met indicators of methodological rigor, revealed a moderate relationship between the

level of importance school counselors ascribe to their program and how involved they become with the development and implementation of it (Lauterbach et al., 2018).

The 2001 study that guided the development of the ASCA National Model for School Counseling drew upon theoretical underpinnings that also informed the construct development for this study (Hatch & Chen-Hayes, 2008). Hatch and Chen-Hayes (2008) cited Ajzen's Theory of Planned Behavior, which posits that beliefs can predict and influence behavior (Ajzen & Fishbein, 1980). A closer look at Ajzen's work for this study's literature review revealed a second beliefs theory, the Theory of Reasoned Action (Fishbein & Ajzen, 1975). Both theories include hypotheses that link beliefs to behavior. The Theory of Reasoned Action assumes that behavior is determined by intention, which is determined by beliefs or judgements and/or a persons' perceptions of social pressures to perform/not perform a behavior, both of which, are determined by a belief system (Fishbein & Ajzen, 1975; Salazar, 1991). Although testing has revealed mixed results as well as limitations, these tested theoretical frameworks suggest that beliefs can and sometimes do predict and impact behavior (Knabe, 2012; Teo et al., 2016).

This study also sought to explore beliefs within the context of a major event of educational significance (the COVID-19 pandemic). Epstein's social cognition-oriented Cognitive-Experiential Self-Theory (CEST) (1973) posits that beliefs are influenced by highly significant events. Multiple studies have tested this theory, including Fletcher (1988), examining causes of PTSD, and demonstrating that "basic beliefs are influenced by emotionally significant experiences" (Catlin & Epstein, 1992, p. 191). Catlin and Epstein (1992) also conducted a study to test CEST, which examined 13 types of emotionally

significant life events ranging from major successes to traumatic events. Although the research revealed that some events associated significantly with impacted beliefs, while others did not, the results did demonstrate, at times, an association between significant events and impacted beliefs. An additional hypothesis—that significant events can have cumulative effect on beliefs—was also supported by the study’s data.

Review of the aforementioned studies provide the researcher of this study with evidence that (1) school counselor beliefs are a fundamental consideration in the implementation of school counseling systems of support, (2) that beliefs can predict and influence human behavior, and (3) that beliefs can be affected by exposure to events of significance.

School Counselor Beliefs on MTSS/MTMDSS

The available literature on school counselor beliefs related to MTSS/MTMDSS frameworks is, at present, limited. A thorough, while selective review of the research related to school counselor beliefs on MTSS revealed research measuring counselor beliefs about earlier incarnations of MTSS, such as RTI (Patrikakou et al., 2016) and research exploring the connection between MTSS training and school counselor perceptions about components of school counselors’ roles (Goodman-Scott et al., 2022). A broader, less selective search unveiled recent research that examined the school counselor knowledge and skills of MTSS frameworks (Olsen et al., 2020), as well as teacher and administrator perceptions of MTSS (Braun et al., 2018; Dulaney et al., 2013). An exhaustive review of the literature on school counselor beliefs about the importance of MTSS/MTMDSS Universal Supports interventions since COVID-19 revealed no available research at the time of review.

Gaps in the Literature and Opportunities

This review of the literature explored five individual areas that connect to measuring high school counselor beliefs on the importance of Universal Supports within an MTMDSS framework since the arrival of the COVID-19 pandemic. What emerged from this review was a robust body of literature supporting the connection between national events of educational significance, school counselor beliefs, and the evolution of school counseling systems of support over time. Although longitudinal data studying the impacts of COVID-19 on student needs is not yet available, the limited and emerging research reveal significant impacts on student needs across academic and personal health and well-being indicators, with particularly consequential impacts on underrepresented students and/or students attending under-resourced schools. Significant literature also examined the ways in which school counseling aligns to MTSS frameworks. Theoretical frameworks tested in the literature provided evidence that beliefs are central to successful implementation of educational programs, that beliefs can predict and impact behavior, and that beliefs can be impacted by significant events. Finally, the exploration of school counselor beliefs on the importance of MTSS/MTMDSS interventions since COVID-19 revealed significant gaps in the literature and highlighted a need for additional research.

The current literature gaps on school counselor beliefs about the importance of MTSS/MTMDSS interventions suggest that California state education code, professional school counseling organizations, schools/districts, and school counselors are mandating, recommending, and delivering MTSS/MTMDSS interventions in their pre-pandemic form, without a body of research to assess the extent to which school counselors consider them

important in the COVID-19 era. As this literature review discovered, school counselor beliefs can play a key role in effective implementation of programs. Measuring these beliefs may serve as indicators for the likelihood of successful implementation of systems of support. The lack of currently available literature, coupled with the significance of understanding high school counselors' beliefs on the importance of the MTSS/MTMDSS frameworks, presents an opportunity and an imperative for the research design described in Chapter Three.

Chapter Three: Methodology and Research Design

This chapter will explore the purpose of the research, as well as the rationale for the selected methodology of the study's design. The population and sample, instrumentation, data collection design, and analysis techniques will be demonstrated. Evidence for validity and reliability will also be explored. Lastly, ethical considerations, as well as the limitations and significance of this study will be considered.

Statement of the Problem

Throughout the COVID-19 pandemic, California high school students have endured varying degrees of uncertainty, hardship, and trauma, presenting an evolving range of student needs (AAP, 2021; Minkos & Gelbar, 2020; Murata et al., 2021; Watson et al., 2022). Emerging research has revealed a correlation between the amount of time spent in distance learning and declines in academic achievement, with the most profound impact on students of color and/or students attending high-poverty schools (Goldhaber et al., 2022; Jack et al., 2021). Beyond declines in academic achievement, significant numbers of students have reported increases in anxiety, depression, stress, loneliness, chronic absenteeism, and suicidal ideation (AAP, 2021; Gazmararian et al., 2021; Murata et al., 2021). Furthermore, students from marginalized backgrounds disproportionately experience hardship, stress, anxiety, and depression more regularly and profoundly and are more likely to suffer unmet basic human needs (Capizzi & Bruce, 2021; Waselewski et al., 2020). As a result, students are presenting increased and varied needs in schools since COVID-19 that must be programmatically addressed to promote their academic success (ASCA, 2019a; Roman et al., 2021; Watson et al., 2022).

School counselors are often the first responders to support students in dealing with academic and social-emotional challenges at school (Schilling, 2019). California high school counselors, faced with the dilemma of how to support student needs effectively and equitably with limited resources during COVID-19, have looked to the state as well as professional organizations for guidance on best support practices. Multi-tiered support frameworks, such as MTSS and its school counseling-specific derivative, MTMDSS, existed prior to COVID-19 and have emerged as prominent pandemic response recommendations. These systems are being implemented in school districts throughout California as data-driven, preventative frameworks that focus on distributing limited school resources equitably to ensure the success of all students (CDE, 2022; Sullivan et al., 2020). The implementation of MTSS/MTMDSS by school counselors, at the guidance and direction of professional organizations, school/district leadership, and state legislation, presupposes a belief in the importance of these frameworks by the counselors who are tasked with implementing them. As discussed previously, beliefs are an important construct to consider, as they can have implications for the likelihood of successful implementation of educational programs (Sink & Yillik-Downer, 2001). The exploration and measurement of school counselor beliefs on one of these frameworks (MTMDSS) since COVID-19 is the primary focus of this research.

Purpose of the Research

This study has three purposes: (1) explore and measure California high school counselor beliefs on the importance of MTMDSS (Tier 1) Universal Supports since the onset of the COVID-19 pandemic; (2) assess the reliability of the Universal Supports Importance Scale (USIS) to measure these Universal Supports-based beliefs, as well as any validity evidence to

trust the meaningfulness of the scores generated by the instrument; and (3) explore which variables, if any, predict/explain these Universal Supports-based beliefs.

Research Methodology and Study Design

This mixed methods study sought to elicit a more thorough understanding of high school counselor beliefs by drawing from the strengths of both quantitative and qualitative research designs. The choice of a mixed methods design aligns with the pragmatic worldview of the researcher, who rejects the positivist view, and instead, attempts to address problems through a pluralistic and real-world orientation (Creswell & Creswell, 2018). Mixed methods research is recognized to support deeper insight into a problem or phenomena being studied, by combining data collection and rigorous analysis methods, thereby bolstering the limits of the methods in isolation (Creswell & Creswell, 2018; Yin, 2006). With these advantages in mind, the researcher incorporated a mixed methods strategy to collect a strong body of evidence, explore a complex construct, and address the research questions presented in this study.

Research Methods

This study utilized an explanatory sequential mixed methods design. This design strategy included two phases of data collection: quantitative followed by qualitative (QUAN → Qual). The qualitative phase was designed to promote a deeper understanding of the quantitative data collected, as well as triangulate the researcher's preliminary analysis and interpretations of the quantitative results.

This study began with the deployment of a fixed item, online survey designed to measure high school counselor beliefs on the importance of (Tier 1) Universal Supports within the

MTMDSS model of delivery for MTSS. Data collected and analyzed from the survey helped inform the sampling, inclusion criteria, and final interview protocol for the qualitative data collection phase. Qualitative data were collected through semi-structured interviews and analyzed for consistent and emergent themes.

Study Population

The participants of this study were high school counselors working in California high schools throughout the state. 903 of the school counselors identified as meeting criteria for participation were invited to respond to an online anonymous survey near the start of the 2022/2023 academic year. Follow-up interviews were conducted with a small number of survey respondents for the purposes of triangulation and validation of survey results, as well as a more complete understanding of high school counselor beliefs on the importance of Universal Supports within the MTMDSS delivery model.

Study Sampling

To measure California high school counselor beliefs on the importance of Universal Supports specific to the MTMDSS model, which is built upon the standards and domains of the ASCA National Model for School Counseling, the researcher invited California high school counselors who are members of CASC (a state charter of ASCA) to participate in the study, and school counselors whose professional membership was not known by the researcher. This was done to broaden reach, increase participation, and encourage a sample that was representative of the statewide composition of high school counselors throughout California. These counselors were identified through the CASC membership directory, as well as publicly available high school counselor directories. The researcher invited

participants by email over the course of three sample outreach phases. Multiple phases were used to increase survey participation and sample size. Follow-up emails were sent to participants as needed throughout the data collection phase. See Appendix A for sample recruitment emails.

Sampling for the follow-up interviews was limited to six participants, selected using purposive sampling. The researcher considered both school counselor and school community demographics in identifying potential interview candidates to ensure that the qualitative participant population would (1) be reflective of diverse statewide school counselor demographics, and (2) align as closely as possible to the sample demographics from the quantitative phase. For example, the researcher purposively sampled interview participants based on a range of school counselor and school community demographics such as gender identity of counselor, race/ethnicity identity of counselor, counselor years of experience in the field, school county type, and school population socio-economic indicators.

Description of the Setting

This study was conducted during the third year of a multi-year, global pandemic. Chapter One and Chapter Two described the significance of the pandemic on California public schools and the potential impact on student support needs. Although the state of the COVID-19 pandemic in September 2022 differed from its earlier years, it was still a relevant consideration for high school counselors at the time of data collection, and thus, the researcher has included it in the description of the study's setting.

The settings for both data collection phases of this study were remote. The researcher selected this setting for the purposes of (1) convenience to the participants, (2) to ensure

higher likelihood of participation and completion, and (3) to adhere to safety precautions, in case COVID-19 pandemic protocols were still active at the time of data collection. The quantitative data collection phase of the study incorporated an online survey. Study participants accessed this survey remotely on the Qualtrics platform, using an online link that they received by email. Respondents were able to complete the survey in a location and at a time of their choosing within the survey data collection window. The qualitative data collection phase, which consisted of semi-structured interviews, took place by Zoom web conferencing (audio only). Thus, the settings for these interviews took place remotely from any location where such technology was accessible. The dates and times of interviews were arranged based on the availability of the study participants.

Instrumentation

Two instruments were used to collect data for this study: an online survey (Universal Supports Importance Scale [USIS] for High School Counselors) and a semi-structured interview protocol. These instruments were designed by the researcher to strategically capture descriptive and demographic data, in addition to examining high school counselor beliefs on four facets of practice within the Universal Supports tier of MTMDSS.

Universal Supports Importance Scale (USIS) Design. The USIS design was informed by best practices of education measurement and assessment by utilizing the National Research Council's (NRC) Assessment Triangle and Mark Wilson's Four Building Blocks of instrument development (National Research Council, 2001; Wilson, 2005). The NRC's Assessment Triangle maintains that efficacious instrument design requires three pillars or vertexes: cognition, observation, and interpretation. Wilson's Four Building Blocks

encompass the same core components of the Assessment Triangle; however, Wilson separates the third vertex of the triangle, interpretation, into two distinct interpretation strategies.

Construct Maps. Wilson's first building block is the construct map. The construct map is a model or visual representation for the construct that is being measured (Wilson, 2005). For the development of this study, construct maps were developed to visually represent the potential range in school counselor beliefs on the importance of four facets of practice for (Tier 1) Universal Supports within the MTMDSS model to inform the corresponding survey items. The construct maps were developed through an iterative process that included research on school counselor beliefs, MTSS and MTMDSS frameworks, the ASCA National Model for School Counseling standards and competencies, and a four-course workshop series led by the researcher's dissertation advisor and including other doctoral students. See Appendix B for an example of a construct map developed for this study.

Items Design. Wilson's second building block is items design, which centers on the format and structure of the instrument and its connection to the construct it intends to measure (Wilson, 2005). The USIS has three sections, designed to connect to the construct and respond to the research questions for this study.

Survey development began with an initial exploration of the role of the high school counselor within the context of the COVID-19 pandemic. The researcher has distinct interests in studying the role of the school counselor. Exploring beliefs became a central focus as initial review of the literature revealed the key role that counselor beliefs have played in the professionalization of school counseling over time. As part of an assignment for

a graduate-level course, the researcher initiated informal piloting of questions related to priorities for school counselors during the COVID-19 pandemic. Preliminary findings from this practice piqued further interest in examining school counselor beliefs within the context of the pandemic. Beliefs about school counseling support services initially emerged as a theme of interest, and over time, evolved into a primary element of the main construct for this study.

The researcher's next stage of literature review on school counseling pandemic response, revealed that across the U.S. and within California specifically, MTSS continued to be heralded as an equity-oriented framework, effective at supporting a varying range of student needs within the limited available resources of educational institutions. Specific to school counseling, ASCA and CASC recommended MTSS/MTMDSS as a school counselor response to the COVID-19 pandemic. As described in earlier sections of this study, MTMDSS is a complex, multi-tiered, multi-domain, and multi-faceted model of student supports. MTMDSS emerged as a timely area of interest of the researcher, due to its prominence in COVID response recommendations, and due to the lack of literature examining school counselors' beliefs around it.

The items design process for the survey revealed that the researcher needed to reduce the complexity of the model for the purposes and limited scope of this dissertation study, by focusing on only one tier of intervention. This was revealed through construct mapping and iterative review of the construct, as well as potential survey items stemming from the construct. These processes allowed the researcher to conclude that in order to begin to

measure the construct well, he needed to focus on one tier within one specific delivery model, and consequently, distill focus to one construct.

The researcher compared MTSS and MTMDSS models, tenets, and facets. Although school counselors often work with MTSS as part of their school system, many of the tenets are not necessarily tangible or recognizable by school counselors, as they do not necessarily connect directly to the role of the school counselor. By contrast, the Universal Supports recommended by the MTMDSS delivery model, (created by a key contributor to the ASCA National model as well as the appointed lead for California school counseling MTSS professional development) are components of many high school counselor programs, and thus, more likely to be identifiable by high school counselors working in the field. An expert panel review process also enabled the researcher to determine that the support interventions outlined in the MTMDSS framework were more likely to be recognizable and understandable, and thus relatable to the proposed study's sample: high school counselors. For this reason, the USIS items were built around facets of practice found within MTMDSS specifically.

Part One of the USIS is designed to address RQ1, which asks about high school counselor beliefs on the importance of Tier 1 Universal Supports. See Appendix C for the complete USIS survey instrument. When selecting which of the three tiers of support to base this study on, the researcher selected Tier 1 for multiple reasons; first among them, that the subsequent tiers of support hinge on the degree to which appropriate and effective Universal Supports are implemented. The researcher's examination of the standards and competencies of the ASCA National Model for School Counseling, as well as training protocols for best

practices in implementation of MTMDSS Universal Supports, revealed four overarching types of school counseling T1 interventions (described in Chapter Two). This study refers to these as the facets of practice. The four facets include: (1) school counseling curriculum, (2) individual student planning, (3) schoolwide events, and (4) parent education events (note: the MTMDSS pyramid, displayed in Figure 3 in Chapter Two, includes parent education within the third facet [schoolwide events], however, the researcher has separated parent education events into its own facet in the USIS to capture a distinction in school counselor beliefs about interventions received by students and those received by parents). Part One of the USIS is composed of 21 items, divided between the four facets. These items were designed to measure the degree to which various Universal Supports from each facet are believed to be essential by high school counselor respondents.

Part Two of the USIS is designed to address RQ3 of the study. RQ3 examines whether various demographic variables predict or explain school counselor beliefs (revealed by Part 1 of the USIS.) This section of the survey consists of 18 items.

The third and final section of the USIS consists of 6 exit interview items designed to assist in addressing RQ2. RQ2 inquires about the validity and reliability of the USIS findings. These exit interview items provide additional understanding of the respondents' experience with the survey, including understanding of the items, and were designed to provide additional validity evidence, as described in subsequent sections of this chapter.

The USIS underwent a series of expert panel reviews during its development and leading up to its deployment. This panel consisted of California experts in the field of school counselor education, as well as secondary school district leaders closely connected with

school counseling and student support services. These expert panel reviews were instrumental in narrowing the focus of the construct being explored, the sectional makeup of the USIS, and individual survey items. The USIS also underwent school counselor panel “think aloud” protocols prior to deployment, to better understand the thought process and experience of respondents while answering the survey items (see Appendix D). This process led to further refinement of the instrument.

Semi-Structured Interview Protocol. Qualitative data were collected through semi-structured interviews. The interview protocol was designed to align with construct maps and survey items from the quantitative phase of the study. Consistent with the USIS instrument, the semi-structured interview protocol focused on the same four facets of practice within the MTMDSS model’s (Tier 1) Universal Supports.

The protocol used in the qualitative phase of this study revisited the construct and items within Part One of the USIS survey instrument. A series of follow-up probes were deployed to elicit narrative explanations with the goal of providing deeper context and understanding of survey participants’ cognitive processes, survey responses, and levels of belief (Duckor & Holmberg, 2017). The protocol was reviewed by experts who were known and available to the researcher. These experts offered feedback related to potential items bias and item clarity. Their feedback guided protocol changes prior to conducting any interviews. The semi-structured interview protocol can be found in Appendix E.

Data Collection Procedures

Potential respondents were pre notified of the study by email, which included participant consent notification. Follow up correspondence included a link to the online survey.

Prenotification began in early September and the follow up survey link was emailed separately during the subsequent week. Reminder emails were sent periodically, over the span of three weeks. The researcher conducted three separate cycles of outreach, over the span of two months to increase the survey response rate. The quantitative data collection phase ended in November 2022. Preliminary data analysis began once the survey data had been collected, and this informed further refinement of the qualitative phase of the study.

Following the quantitative data collection and preliminary analysis phase, interview protocols were refined, and qualitative sampling criteria were established. A purposive sample of school counselors was recruited for the qualitative phase of the study with a focus on recruiting a sample that was representative of the sample of survey respondents. Potential participants were invited to participate in a 30-minute semi-structured interview. The researcher interviewed 6 high school counselors for this phase of the study. All interviews were audio recorded digitally and immediately backed up on a two-factor authenticated, password protected computer accessible only by the researcher.

Data Analysis

This mixed methods study incorporated several data analysis strategies. Table 2 presents a summary of the data analysis strategies used in the study.

Table 2*Data Analysis Summary*

Research Question	Analysis	Model/Method	Software	Data Source
RQ1 High school counselor beliefs on the importance of MTMDSS (Tier 1) Universal Supports	Quantitative analysis of frequency of responses Qualitative analysis of responses	Descriptive Statistics Content Analysis Deductive and Inductive Thematic Analysis	MS Excel SPSS 28 MS Excel Dedoose	USIS survey data Semi-structured interviews (audio transcripts)
RQ2 Reliability and validity of USIS's measurement of Universal Supports-based beliefs	Quantitative analysis of survey instrument's responses	IRT Item Analysis Wright Maps DIF Analysis	MS Excel SPSS 28 ConQuest	USIS survey data
RQ3 Variables that predict HS counselor beliefs	Quantitative analysis of relationships between beliefs and demographics	Descriptive Statistics Regression Analysis	MS Excel SPSS 28	USIS survey data

Quantitative Data Analysis. Upon completion of the survey data collection, the researcher used Microsoft Excel to compile and categorize response data. Descriptive statistics analysis was performed in SPSS to observe frequencies for all the survey items as well as demographic items. Reliability and validity evidence were collected through multiple analysis strategies described in the subsequent sections. Three linear regression models were applied to the data utilizing SPSS to explore the potential relationship between the dependent response variable (school counselor beliefs) and the independent explanatory variables (such as years of experience in the field, gender, or urbanicity of school district).

Qualitative Data Analysis. Following transcription of the semi-structured interviews, the researcher began data analysis on responses. First, case profiles were created for each of the interviewees with key demographic information and responses for each question. The researcher also compared survey responses to interview responses for each interviewee case

profile, noting where responses were aligned or differed. Deductive and inductive thematic analyses were applied to the response data, using a coding system developed in consultation with the researcher's advisor. Codes were created based on the pre-determined facets of practice, as well as recurring emergent thematic patterns within interviewee responses. These codes were applied to excerpts from interviews manually and using Dedoose computer-assisted data analysis software. Coded excerpts were applied to support each theme in the content analysis of the data as well as quantitative and qualitative side-by-side data analysis.

Evidence for Validity and Reliability

Checking for validity and reliability was a central focus of this study. This was critical in the development of the USIS, to ensure that the instrument measured what it claims to measure, consistently and dependably. Further, this was a necessary focus for the researcher to make meaningful inferences from the data produced by the study's instrument. This study followed the standards of leading research organizations, including AERA and the NRC to collect evidence to eliminate or reduce, where possible, threats to validity and reliability.

Evidence for Validity. Validity evidence allows researchers to make meaningful inferences from the data collected. The National Research Council (2001) defines validity as "The degree to which evidence and theory support interpretations of assessment scores" (p. 39). The collection of validity evidence is important to ensure that an instrument is measuring what it claims to measure. There are five types of validity evidence: content validity, response process validity, internal structure validity, relations to external structures validity, and consequential validity (AERA et al., 2014). This study collected evidence for content validity, response process validity, and internal structure validity.

Content Validity. Content validity evidence allows a researcher to examine the relationship between the content of an instrument and the construct that it intends to measure (AERA et al., 2014). The USIS was developed utilizing several strategies as checks for content validity. Construct maps were developed and incorporated for the construct of high school counselor beliefs on the importance of Universal Supports to develop a framework for the construct being measured (see Appendix B). This construct was informed by the literature review on beliefs, MTSS and MTMDSS frameworks, and the ASCA National Model for School Counseling. Items design was aligned to the construct maps and items were reviewed by a panel of school counseling experts available to the researcher in an iterative process.

Response process validity. Response process validity evidence allows researchers to examine the assumed cognitive processes taking place in the use of a survey as well as understand how respondents interpret the survey's items (AERA et al., 2014). This study collected and examined response process validity evidence through a panel think aloud prior to the deployment of the USIS to study participants. This check for validity led to changes in survey items prior to the release of the survey to ensure that items measured the intended construct. Evidence was also collected through the survey's exit item questions in Part Three of the USIS.

Internal structure validity. Internal structure validity evidence examines the patterns in item responses to consider the relationship between the item and the construct. This type of validity evidence allows the researcher to know the degree to which the instrument measures what it intends to measure (AERA et al., 2014). This study employed IRT Analyses, Wright

maps, and Differential item functioning (DIF) analysis to confirm alignment between construct maps and the survey's items design.

Relations to external variables and consequences. Two types of validity evidence were not collected for this study: relations to external variables and consequences. Relations to external variables evidence is when a primary instrument is compared to another instrument designed to measure a similar construct, with the rationale that they should generate comparable responses (AERA et al., 2014). Although not collected within this study, comparing this study's survey instrument which measures beliefs to other instruments measuring similar beliefs-oriented constructs could improve its effectiveness of measurement in future use. Consequences validity evidence aims to determine whether an instrument is aligned with its intended use by examining the evidence and interpretations derived from it (AERA et al., 2014). Although this type of validity evidence was not collected due to this study's limited size and scope, as well as limits on the researcher's time, consequence validity evidence protocols would be an important addition prior to future and wider-scale use of this study's instrument.

Evidence for reliability. Reliability refers to "the consistency of an assessment's results when the assessment procedure is repeated on a population of individuals or groups" (National Research Council, 2001, p. 39). Stated in the form of a question: are the assessment's results consistent and dependable? There are four types of reliability evidence: internal consistency, alternative forms, test-retest, and rater reliability. Additionally, the influence of random errors can factor into the reliability of an instrument, and thus, will also be discussed in this section.

Internal consistency. This study collected internal consistency data to explore and understand the reliability of the instrument. Internal consistency coefficients are one of the three recognized methods of exploring reliability and involves “the relationships/interactions among scores derived from individual items or subsets of items within a test, all data accruing from a single administration” (AERA et al., 2014, p. 37). This study generated Cronbach’s alpha and Person separation coefficients to document the reliability of the instrument. AERA recognizes that multiple reliability coefficients can be useful because “different coefficients convey different information” (AERA et al., 2014, p. 38).

Alternate forms, test-retest, and rater reliability. There are three types of reliability evidence that the researcher did not collect in this study: alternate forms, test-retest, and rater reliability. Alternate forms of reliability evidence should be collected in instances when multiple versions for a survey are being utilized in a study. The means, standard deviations, or reliability coefficients of each of those versions can be compared by the researcher to demonstrate the instrument’s reliability. The researcher produced and incorporated only one version of the USIS for the purposes of this study, and thus, was not able to collect alternate forms of reliability evidence. Test-retest entails a respondent completing the same instrument more than once, within a finite period, and analyzing variations within their responses (AERA et al., 2014). This type of reliability evidence was not collected due to the limited scope of this study, including limitations on the researcher’s time and resources, as well as the limited availability of respondents. Lastly, rater reliability involves examining variation in scoring during the qualitative analysis of an instrument employing different raters (AERA

et al., 2014). The instrument developed for this study (USIS) is a Likert style survey utilizing automatic fixed choice scoring, and thus, this type of evidence was not relevant.

Random Errors. Random errors are “unpredictable fluctuations in test scores” (AERA et al., 2014, p. 36). Such fluctuations occur when instrument responses are unpredictable due to (internal or external) contexts that influence how respondents engage with an instrument and pose a threat to the reliability of the instrument (AERA et al., 2014). Possible random errors that could impact the reliability of the USIS include time, motivation, access, and distractions. The researcher employed a variety of strategies to reduce random error in the USIS instrument, including notification, survey completion time, accessibility of the survey, progress indicators within the survey, timing of survey deployment, and strategic use of reminders.

To initially reduce the presence of random errors, potential respondents were pre-notified of their selection as study candidates by email, which highlighted the purpose of the study and the value of their input. The survey, by design, consisted of a limited number of items, and consequently required minimal time to complete, decreasing the likelihood of fatigue, boredom, or incompleteness. A progress indicator feature was installed on the final version of the USIS through the Qualtrics platform, allowing participants to monitor the percentage of the survey they had completed/had left to complete. Further, by deploying the instrument online via Qualtrics, the likelihood of error related to accessibility was reduced significantly. Lastly, the researcher strategically sent reminders to respondents over a multi-week period, as determined by the completion timeline goals established by the researcher, as well as completion rates.

Ethical Considerations

This study was submitted to the San José State University Institutional Review Board and granted approval in the summer of 2022 (Protocol #22168, see Appendix F). Participation in the study was voluntary and consent notification was provided to all participants. Participant rights and confidentiality protections were included in the consent notice and participation agreement (see Appendix G). This agreement was integrated into the survey and participants needed to acknowledge/accept the agreement to move forward with the rest of the survey. A consent notice was shared again with all participants in the qualitative interviews (see Appendix H). Acknowledgement of receipt, in addition to verbal consent to audio recording was obtained at the beginning of the interviews.

Participant confidentiality was a priority of the researcher in this study. Significant effort went into ensuring the privacy of participants. Survey responses were anonymous, unless the participants shared their email address, which was an option for respondents who were interested in being contacted for a follow-up interview. Raw survey data were cleaned to deidentify responses prior to initiating data analysis. Additionally, all survey participants were assigned a unique numeric identification number and all data were only reported in aggregate to prevent revealing participants' identities. In the qualitative phase of the study, like the survey, all interview participants were assigned unique numeric identifiers and identifying language in interview responses was redacted prior to data analysis.

Limitations and Significance

The researcher acknowledges several limitations with this study. The most significant limitations are related to the limited size and scope of the study. This study was able to

recruit 113 high school counselors for its quantitative phase and 6 high school counselors for its qualitative phase. A larger sample size would be helpful in improving the generalizability of the findings. This study only included school counselors working at the high school level. Thus, this study's findings are limited in generalizability to the secondary level of school counseling. This study also has limited reach to school counselors within the state of California. Broader, more far-reaching research may be useful in connecting findings to the school counseling profession nationally. As previously described, this study sought to measure high school counselor beliefs on one tier (Tier 1) of a three-tiered, multi-dimensional framework. Thus, its findings are limited to one component of a complex matrix that makes up the MTMDSS model. Lastly, this study was cross-sectional and examined school counselor beliefs at one point in time within the COVID-19 pandemic. Longitudinal research would be useful in determining how counselor beliefs evolve with future developments of the pandemic or other events of significance.

This study's numerous limits also offer an abundance of opportunity for ongoing discovery, and consequently, significance to the field of school counseling and educational research. Findings from this study will allow a preliminary view of the degree to which school counselors believe various facets of Universal Supports are essential within this current era in education. As explained in earlier chapters, school counselor beliefs hold implications for behavior, and in the case of MTMDSS, this may connect to effective implementation. This study offers a starting point for subsequent research seeking to measure school counselor beliefs across varying education levels, states beyond California, as well as across other tiers and domains within the MTMDSS model. Also significant, this study is

situated within the setting of the COVID-19 pandemic. Future assessment of school counselor beliefs could lead to a clearer understanding of the impact of the pandemic on school counselor beliefs over time. Lastly, the development of the USIS introduces a new instrument with potential for use in ongoing measurement of high school counselor beliefs on the importance of MTMDSS Universal Supports. As will be discussed in the next chapter, several important steps were taken within this study to test this scale's readiness for use in future research.

Chapter Four: Findings

The purpose of this study was to explore and measure California high school counselor beliefs about the importance of MTMDSS (Tier 1) Universal Supports since the onset of the COVID-19 pandemic. As the COVID-19 pandemic continues to unfold, understanding the beliefs of those directly delivering support services to students is a critical component to gain insight into the probability of effective implementation of MTMDSS by school counselors. Further, measuring school counselor beliefs may offer a way forward in ensuring effective, equitable, and essential interventions to support California high school students in the COVID-19 era.

This explanatory sequential mixed methods study addressed three research questions. First, what are California high school counselors' beliefs about the importance of MTMDSS (Tier 1) Universal Supports since the onset of the COVID-19 pandemic? Second, can these Universal Supports-based beliefs be measured reliably, and is there validity evidence to trust the meaningfulness of the scores generated by the Universal Supports Importance Scale (USIS) instrument? Third, which variables, if any, predict/explain these Universal Supports-based beliefs? This chapter begins with a summary profile of the study participants, followed by a presentation of the findings for each of the study's three research questions.

Profile of the Participants

Participant demographics are central to this study, as they play a key role in addressing one of the study's research questions (RQ3). Thus, significant attention and intention were given to collecting personal and school community demographics from the sample in both phases of this study's data collection.

Analysis of the Quantitative Findings

The study sample consisted of California high school counselors who voluntarily participated in an online survey. A total of 113 school counselors initiated the survey and 101 completed it. The participants of the survey were predominantly highly educated professional school counselors, working in California comprehensive public high schools. Table 3 presents a summary of the personal demographics of the school counselors who participated in the survey.

Table 3

Survey Participant Demographics

Participant Demographics	Frequency	Percent
Gender		
Female	79	78.2%
Male	22	21.8%
Race/Ethnicity		
Asian	1	1.0%
Black/African American	3	3.0%
Hispanic or Latino/a/x	37	36.6%
White	54	53.5%
Prefer to self-describe: Italian American	1	1.0%
Prefer to self-describe: Middle Eastern	1	1.0%
Prefer not to state	4	4.0%
Age		
Younger than 30	6	5.9%
30-39	32	31.7%
40-49	34	33.7%
50-59	20	19.8%
60-69	7	6.9%
70 or older	1	1.0%
Prefer not to state	1	1.0%
Ever employed as a school counselor in CA		
Yes	101	100.0%
Currently employed as a school counselor in CA		
Yes	101	100.0%
Years worked as a school counselor		
Less than 1 year	6	5.9%

(table continues)

Table 3. (continued)

1-4 years	17	16.7%
5-9 years	20	19.6%
10-19 years	38	37.3%
20 years or more	21	20.6%
Highest degree earned		
Bachelor's degree	1	1.0%
Master's degree	100	98.0%
Ed.D. or Ph.D.	1	1.0%
Graduate program attended CACREP accredited		
Yes	55	54.5%
No	12	11.9%
I don't know	34	33.7%
ASCA membership		
Yes	67	66.3%
No	34	33.7%
CASC membership		
Yes	54	53.5%
No	47	46.5%

As Table 3 shows, most respondents (78.2%) were female and 21.8% were male. Respondents' ages varied, with the majority (65%) between the ages of 30-49 years old. White school counselors made up a slight majority of the respondents at 53.5%. Hispanic or Latino/a/x school counselors were 36.6%. Three percent of respondents indicated that they were Black/African American, 1% identified as Asian, and two respondents (2%) chose to self-describe as Italian American and Middle Eastern, respectively. Respondents almost entirely held advanced degrees, with 99% completing a master's degree or higher (one respondent completed an Ed.D. or Ph.D.). School counselors who attended CACREP accredited graduate programs made up 54.5% of respondents, while 11.9% attended non-CACREP accredited programs and 33.7% indicated that they did not know the status of their program. The majority of respondents (57.9%) had more than ten years of experience working as a school counselor, nearly 20% had between 5-9 years, and 22.6% had fewer than

five years of experience in the field. Sixty-six percent of respondents were active members of the American School Counselor Association (ASCA) and 53.5% were active members of the California Association of School Counselors (CASC).

In addition to collecting school counselors' personal demographics, school community demographics were also collected. Study participants were representative of different types and sizes of high schools as well as school communities that varied in levels of urbanicity, socio-economic indicators, and student enrollment composition. Table 4 presents a summary of the school community demographics that were identified by the school counselors who participated in the survey.

Table 4

Survey Participant School Community Demographics

Participant School Community Demographics	Frequency	Percent
County/Community Type		
Rural	19	18.6%
Suburban	60	58.8%
Urban	23	22.5%
Type of High School		
Comprehensive public high school	90	89.1%
Charter high school	3	3.0%
Continuation or alternative public high school	5	5.0%
Private high school	2	2.0%
Other: COSA (Counselor on special assignment)	1	1.0%
Student Enrollment of School		
300 or fewer	3	3.0%
301-600	6	5.9%
601-1,000	6	5.9%
1,001-2,000	37	36.6%
2,001 or more	49	48.5%
Students Qualify for Free and Reduced Lunch		
10% or less	11	10.8%
11% - 25%	17	16.7%
26% - 50%	23	22.5%

(table continues)

(Table 4) continued.

51% - 75%	19	18.6%
More than 75%	32	31.4%
Students in Foster Care		
Less than 1%	45	45.0%
1% - 5%	43	43.0%
6% - 10%	11	11.0%
11% - 25%	1	1.0%
Students Experiencing Homelessness		
Less than 1%	31	31.0%
1% - 5%	50	50.0%
6% - 10%	13	13.0%
11% - 25%	6	6.0%
Students in ELD		
10% or less	40	39.6%
11% - 25%	39	38.6%
26% - 50%	12	11.9%
51% - 75%	9	8.9%
More than 75%	1	1.0%
Student-to-Counselor Ratio		
250-to-1 or lower	9	9.0%
251-to-1 – 609-to-1	87	87.0%
610-to-1 or higher	4	4.0%

As Table 4 shows, the final sample was predominantly comprised of school counselors working in comprehensive public high schools with student caseloads of between 251-609 students. The majority (58.8%) of high schools were located in suburban counties, while 22.5% were located in urban counties and 18.6% were located in rural counties. Nearly half of the survey respondents worked in high schools with student enrollments of 2,000 or more. High schools with 1,001-2,000 students accounted for 36.6% of respondents and 14% of respondents worked at schools with 1,000 or fewer students. Thirty-one percent of respondents worked in high schools where more than 75% of the enrolled students qualified for free and reduced lunch. Nearly nineteen percent worked in schools where 51%-75% qualified, twenty-three percent worked in schools where 26%-50% qualified, nearly seventeen percent worked in schools where 11%-25%, qualified, and almost eleven percent worked in schools where 10% or less qualified. Students in foster care accounted for 5% or

less of the student population in eighty-eight percent of survey respondents' schools. Eighty-one percent of respondents indicated that 5% or fewer of the total students enrolled in their schools were experiencing homelessness, while thirteen percent said that the rates in their schools were 6%-10% and six percent reported rates of up to 25%. Student enrollment in English Language Development (ELD) programs also varied between respondents, with most respondents (eighty percent) working in schools with 25% or fewer of their school's students in ELD.

Analysis of the Qualitative Findings

Six California high school counselors were interviewed for the qualitative phase of this study. School counselors' personal demographics and school community demographics were obtained from participant survey responses and directly from participants during the semi-structured interview. Participants in the semi-structured interviews included four females and two males. Although five of the six participants indicated the same age range of 40-49 years old (the sixth participant indicated 30-39), the range of years working in the field of school counseling had more variation, with the following years of experience reported: 1 year, 3 years, 6 years, 10 years, 16 years, and 23 years. Three of the participants identified as Hispanic or Latino/a/x, two as White, and one as Black/African American. Half of the participants were active members of ASCA, and one was a member of CASC. All six of the interview participants worked at comprehensive public high schools. Three of the high schools were located in suburban counties and two were in urban counties, all with enrollments ranging from 1,000-2,000 or more students. One high school was in a rural county with an enrollment range of 601-1,000 students. Interview participants served a

diverse range of students across socio-economic and demographic indicators. For example, the range of students who qualified for free and reduced lunch was <10% - >75%. The same range applied to students enrolled in ELD.

Analysis of the Quantitative and Qualitative Findings

All professional characteristics of study participants and school county types were represented in the quantitative and qualitative methods of this study. The researcher considered both the personal and school community demographics identified in the quantitative findings when sampling interview candidates to ensure that the qualitative participant sample would reflect the quantitative sample's demographics. For example, in the quantitative methods, female school counselors, comprehensive public high schools, and high schools located in suburban counties were oversampled. With this in mind, the researcher intentionally oversampled these demographic indicators in the selection of interview participants to support adequate representation in both methods of the study, and within the final sample.

Results for Research Question One

The first research question was, what are California high school counselors' beliefs about the importance of MTMDSS (Tier 1) Universal Supports since the onset of the COVID-19 pandemic? To address this question, the quantitative and qualitative data were analyzed. School counselors were asked in both methods to share their beliefs about the importance of four facets of school counseling interventions within the Universal Supports tier (T1) of the MTMDSS framework: school counseling curriculum, individualized planning, schoolwide events, and parent education events. The USIS survey items and semi-structured interview

protocol can be found in Appendix C and Appendix E, respectively. The following section of the study presents a summary of the findings within each of the four facets, for both methods of data collection.

Analysis of the Quantitative Findings: School Counseling Curriculum

The first subsection of Part 1 of the USIS asked high school counselors about their beliefs on the importance of the first facet of practice—a districtwide school counseling curriculum—since the arrival of the COVID-19 pandemic. This subsection included six questions (Q1-Q6), intended to capture a range of school counselor beliefs. Table 5 presents the survey responses for the first facet by item, including item response percentages and medians. Median is reported, as best practice is to report median when working with ordinal data. Mean and standard deviation can be included when working with interval data (as was done with the USIS scale IRT analysis) (Moore et al., 2016).

Table 5

Facet of Practice 1: School Counseling Curriculum

Item	Strongly Disagree (0)	Disagree (1)	Neutral (2)	Agree (3)	Strongly Agree (4)	Missing Values	Median
Q1	0 0%	5 4.4%	8 7.1%	31 27.4%	69 61.1%	0 0%	4.0
Q2	0 0%	0 0%	8 7.1%	30 26.6%	75 66.4%	0 0%	4.0
Q3	0 0%	0 0%	5 4.4%	25 22.1%	83 73.5%	0 0%	4.0
Q4	0 0%	3 2.7%	9 8.0%	48 42.5%	53 46.9%	0 0%	3.0
Q5	0 0%	3 2.7%	11 9.7%	26 23.0%	73 64.6%	0 0%	4.0
Q6	0 0%	1 .9%	4 3.5%	21 18.6%	87 77.0%	0 0%	4.0

As seen in Table 5, there was a high rate of agreement with all the items within the school counseling curriculum facet. This resulted in a distribution of responses, with over

85% of responses falling into *agree* or *strongly agree* outcome spaces for all six items. Over 90% agreed or strongly agreed that a districtwide school counseling curriculum focused on graduation requirements (Q2), college and career exploration (Q3), and/or mental health and well-being (Q6) was essential since COVID-19. 85% or more of respondents agreed or strongly agreed that a districtwide school counseling curriculum focused on building academic skills (Q1), college admissions preparation (Q4), and/or building social skills (Q5) was essential since COVID-19. Although *neutral* responses were low overall, one item (Q5) saw nearly 10% of respondents answering *neutral*. *Disagree* responses on these six items were sparse, with only one item (Q1) receiving over 4% of responses. None of the items in this facet received *strongly disagree* responses. The lowest median in this facet was 3.0 and the highest median was 4.0.

Analysis of the Qualitative Findings: School Counseling Curriculum

The school counseling curriculum facet was explored qualitatively by asking interview participants one main question, followed by a series of probes to triangulate survey responses and elicit a deeper understanding of school counselor beliefs. This interview question asked participants to share their beliefs on how important they thought a planned school counseling curriculum, delivered to all students was since the arrival of the COVID-19 pandemic. All six of the interview participants described a school counseling curriculum for all students as being important, with most of them describing it as highly important.

Interviewee #6 described a school counseling curriculum for all students as being “incredibly important” since COVID-19, which aligned with her survey item responses for

this facet of practice. She also shared that her beliefs stemmed from a broader belief that all students deserve access to comprehensive school counseling.

I think what makes it really important is making sure that all students are getting the information. All students deserve access to grade-specific information, and the best and most comprehensive way to get it is to provide it through classroom curriculum. Otherwise, you risk missing some students, some groups. That's an important part of the MTSS Tier 1 process, the lessons that you provide.

Interviewee #2 described a school counseling curriculum for all students as being “super important” since COVID-19, which aligned with her survey item responses for this facet of practice and specified that she believed this prior to COVID-19 as well.

I actually think this response is true even prior to COVID, but I know you're focusing on since COVID. I think it's super important that we have a high school curriculum that reaches all grade levels, all students, regardless of what kind of programming they're in. And I say that because we obviously have different types of programs at the high schools, whether it's for newcomers or for students who are doing academies or things like that. So, we have to be able to reach all students. So, I think it's important that we plan ahead so that we're able to deliver those things to everyone.

On the more neutral end of the belief spectrum, Interviewees #1 and #5 stated their beliefs in the importance of a school counseling curriculum, while acknowledging that it is not always their top priority in supporting students since COVID-19.

(#1) I would say it's important. I mean it's not going to be – it can't be at the very top of the priority list, because you just really don't have time to put all your resources into that, you know, because of the emergency room type setting here.

(#5) I don't know if it's been long enough for us to really be able to think about all those things. I think we're still in this stage of trying to get back to something normal. I think last year, being our first year back on campus, it was just kind of like a ‘what are we doing?’ type of thing. So, it's definitely important, but probably like a 5 out of 10 right now. It's definitely important, but I don't know how that's really been the priority.

Interviewee #5 built on the idea (mentioned by #1) of crisis response making it difficult to prioritize curriculum since COVID-19. She described a school counseling curriculum as

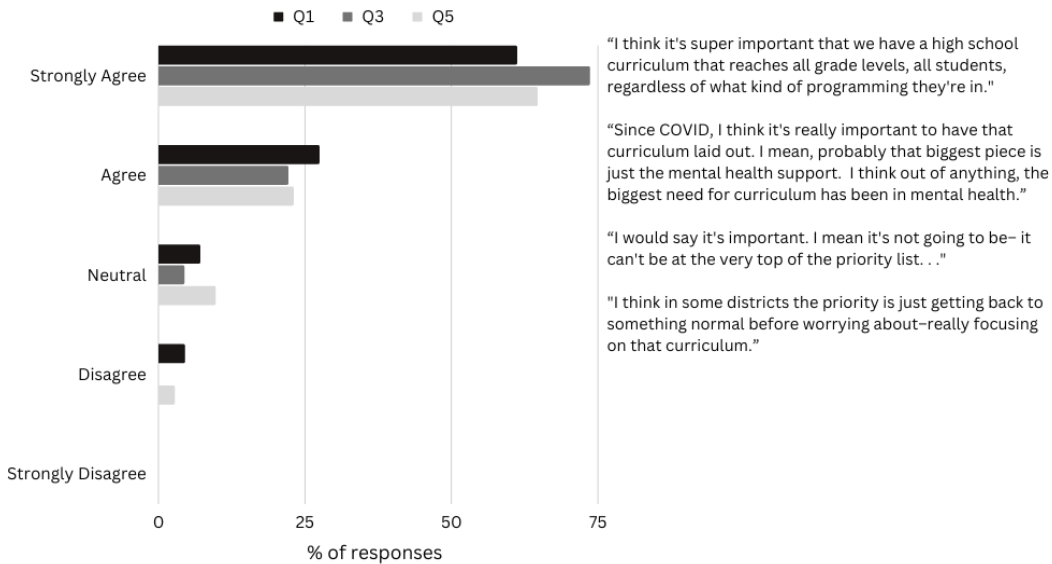
“definitely important,” but also expanded on the disconnection of her ideals versus the realities of her practice since the arrival of the pandemic. This disconnection and conflict within beliefs of overall importance of an intervention, is a theme that emerged repeatedly from the interviews and will be discussed in Chapter Five.

Analysis of the Quantitative and Qualitative Findings: School Counseling Curriculum

The findings from both quantitative and qualitative methods indicated that among the school counselors who participated in the study, there is a high level of agreement in the importance of a districtwide school counseling curriculum delivered to all students since the arrival of the COVID-19 pandemic. The representation of interview responses indicating high levels of belief in this facet was similar to that of the quantitative data in that the majority of responses in both methods agreed or strongly agreed with the importance of this Universal Supports intervention. For all six of the semi-structured interview participants, there was relative alignment between their survey responses and their interview responses for this facet of practice, although it is important to note that additional probing by the researcher uncovered a slightly wider range of endorsements as well as additional emergent themes. In both the survey and the interviews, there were some levels of neutrality and disagreement present (although no strong disagreements presented in either method). Figure 6 presents the variation in responses on the importance of a districtwide school counseling curriculum delivered to all students, as sampled from three survey items and the primary interview question from the school counseling curriculum facet.

Figure 6

Side-by-Side Analysis of the Importance of School Counseling Curriculum Delivered to All Students



Analysis of the Quantitative Findings: Individualized Planning

The second subsection of Part 1 of the USIS asked high school counselors about their beliefs on the importance of the second facet of practice—individualized student planning—since COVID-19. This subsection included five questions (Q7-Q11), designed to elicit a range of school counselor beliefs. Table 6 presents the survey responses for the second facet by item, including item response percentages and medians.

Table 6

Facet of Practice 2: Individualized Planning

Item	Strongly Disagree (0)	Disagree (1)	Neutral (2)	Agree (3)	Strongly Agree (4)	Missing Values	Median
Q7	0 0%	6 5.3%	9 8.0%	33 29.2%	64 56.6%	1 .9%	4.0
Q8	0 0%	4 3.5%	12 10.6%	36 31.9%	60 53.1%	1 .9%	4.0

(table continues)

Table 6. (continued)

Q9	0	0	8	48	54	3	3.0
	0%	0%	7.1%	42.5%	47.8%	2.7%	
Q10	0	6	12	46	46	3	3.0
	0%	5.3%	10.6%	40.7%	40.7%	2.7%	
Q11	0	1	15	45	48	4	3.0
	0%	.9%	13.3%	39.8%	42.5%	3.5%	

As Table 6 shows, there was a high rate of agreement with all the items within the individualized planning facet. This resulted in a distribution of responses, with over 80% of respondents either agreeing or strongly agreeing with each of the five items. Approximately 90% of respondents agreed or strongly agreed that individualized 4-year academic planning for all students (Q7) and individualized postsecondary planning for all students (Q9) was essential since COVID-19. 80%-85% of respondents agreed or strongly agreed that individualized course selection planning for all students (Q8), academic individualized strengths and interests identification for all students (Q10), and individualized goal setting for all students (Q11) were essential since COVID-19. Although *neutral* responses were low overall, three items (Q8, Q10, and Q11) had *neutral* response rates of 10%-13%. Relatively few respondents disagreed with the items in this facet, however, two items (Q7 and Q10) had *disagree* outcome space response rates of 5%. None of the items in this facet received *strongly disagree* responses. The lowest median in this facet was 3.0 and the highest median was 4.0.

Analysis of the Qualitative Findings: Individualized Planning

As was the case in the previous facet, the individualized planning facet was explored qualitatively by asking interview participants one primary question, followed by a series of probes to elicit additional depth of understanding to the data generated by the survey. This

interview question asked participants to share their beliefs on how important they thought individualized student planning, delivered to all students was since the arrival of the COVID-19 pandemic. When asking the question, the researcher reminded interviewees of some of the examples of individualized planning mentioned in the survey.

Five of the six interview participants described individualized planning for all students as being important. The level of importance described included “important,” “quite important,” “huge,” “critical,” and “essential.”

Interviewee #1 described individualized planning for all students as being “essential,” which aligned with his survey item responses for this facet of practice.

Yeah, it’s very important. It’s essential. Well, part of it is just that we’re making it a requirement for them to complete so that they can graduate. Yeah, that makes it essential. And then, besides that, I just think, if they leave high school without a plan that they’ve developed on their own, with help, then they are lost right? And their plans can change five times after they graduate. We don’t care about that. But at least they’re going to be knowing what they think they want to do—and that they have a plan on how to get to that point. So that’s what makes it essential.

Interviewee #3 described individualized planning for all students as being “important”, which aligned with her survey item responses for this facet of practice. She expanded on why this type of planning is important within her school community, and also raised the idea that this type of intervention is needed as an equity tool. The immediate need for equity-focused interventions in counselors’ practices was a theme that emerged throughout the interviews and will be discussed in Chapter Five.

I think it’s important, because it’s kind of like the basis of them understanding what they have to complete throughout their 4 years in high school, and what the main goal is. And so, we have students who fully understand it from the beginning, and understand how they work, and then we also have students who don’t catch on right away. I think because in our community . . . it’s basically agriculturally based and so a lot of our parents don’t necessarily have a higher education. They’re not necessarily

informed as to what it is that they need for graduation and so forth, and so for them to look at these plans, it generates those questions of like, okay, so if I'm looking at this plan and my child has to do these things, how does that work? How do I know that they're on track, you know? So, it's a good thing because it is also for our community.

Interviewee #5 described individualized planning for all students as being “huge” and a “really huge deal”, which aligned with some of her survey item responses for this facet of practice that ranged from *agree* to *neutral*. She expanded on why this type of planning is important within her school community, noting observed learning gaps and socialization gaps since COVID-19. This theme of the immediate need in school counselors' practices to address gaps from distance learning emerged throughout the interviews and will be discussed in Chapter Five.

I think it's huge. I think it's really important for all students, because obviously that's going to be their path that they go through. But I think, especially since COVID, a lot of our students have gotten off track, and they've lost sight of a lot of things. And I think high school students especially, where you know, maybe they performed really well their entire school career, or they did really well in middle school. And then, all of a sudden, since distance learning, you see this huge dip in their learning. Or their motivation dropped from missing out on that socialization. And so, these kids are trying to navigate school with all these missing pieces. And so, I think 4-year plans are very important to give direction.

Interviewee #6 described individualized planning for all students as being “critical”, particularly now, since COVID-19, which aligned with her survey item responses for this facet of practice. She noted that her current work site had begun moving away from 4-year planning just before the pandemic, but once the pandemic arrived, the need for this type of support became evident. This interviewee also discussed an emergent and recurring theme throughout the interviews about the immediate need to support and address increased mental health issues in students since the pandemic. This emergent theme is discussed in Chapter Five.

Living through the pandemic, we've realized that that's something that all students are definitely needing. We are getting so many questions, just a lack of understanding of what the structure looks like, an increase in anxiety from not knowing what to expect or what the process looks like, or how you navigate the different requirements and the options . . . unless you know how to navigate it, it becomes overwhelming . . . There's more of an urgency to it, I think, because it's also addressing the social-emotional piece. Yes, social-emotional. In the last two years, it has been essentially what I do. I'd say almost 90% of my day and it's become higher-level. I would say my typical day consists of students suffering from major depression, generalized anxiety, panic attacks where students are unable to get out of bed, chronic absenteeism, students that have experienced sexual assault—it's just been constant. I have several students hospitalized. So, yes, it's the social-emotional needs, I can't even describe how much this has grown. I've always thought it [individualized planning] was important, but for different reasons—to provide students with agency, and, that they're able to make these decisions for themselves, and know the ins-and-outs of how to make that all happen. But since COVID, the [4-year] plan is actually being used to address social-emotional consequences of the pandemic, like anxiety. . . and so we started doing 4-year planning with ninth graders again this school year . . . and I can't imagine not doing them. They are critical right now.

Interviewee #2 described individualized planning for all students as being “useful” initially, but also described himself as being more “neutral” in terms of his belief in its long-term benefits. He also spoke repeatedly about the challenges of providing individualized planning with large caseloads. This counselor delivers individualized planning in his current school counseling department through classroom lesson formats and finds that approach to be necessary yet limited in its effectiveness.

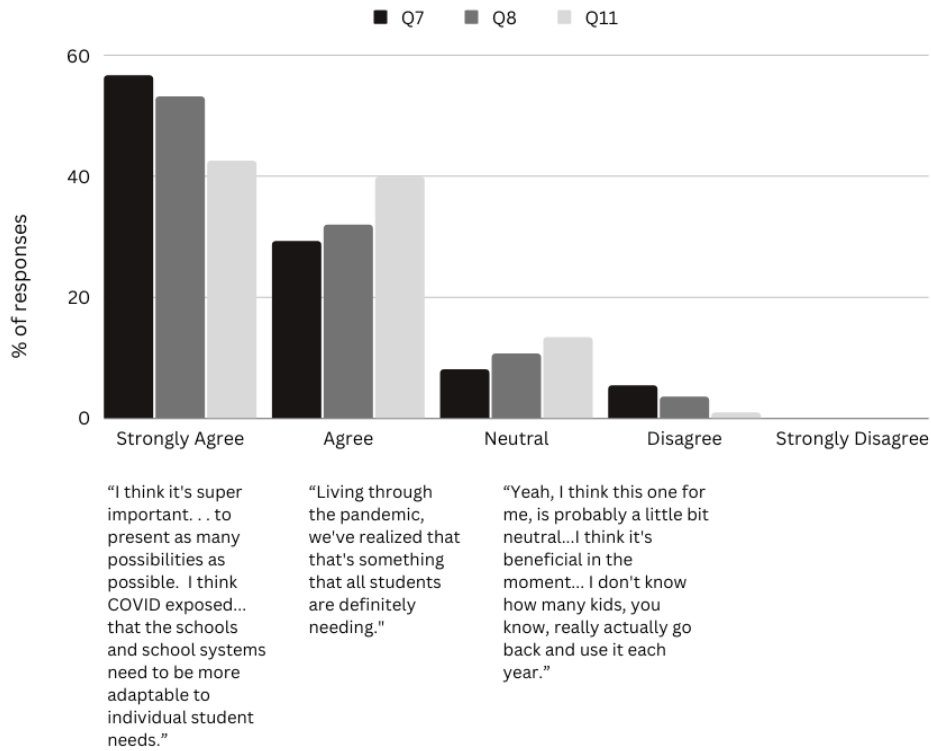
Yeah, I think this one for me is probably a little bit neutral . . . I would say it's aspirational. . . I think it's beneficial in the moment because it gets them to think about planning, not just for the sophomore year, but also options that will be available to them as juniors and seniors. The challenge for us has been coming back to it. We really have not figured out a way, or a method for continually returning to that with each scheduling cycle. So, it's useful if they go back to it. I don't know how many kids, you know, really actually go back and use it each year.

Analysis of the Quantitative and Qualitative Findings: Individualized Planning

Like the first facet of practice, the findings from both quantitative and qualitative methods indicated that among the school counselors who participated in the study, there is a high level of belief in the importance of individualized planning delivered to all students since the arrival of the COVID-19 pandemic. For all six of the semi-structured interview participants, there was relatively strong alignment between their survey responses and their interview responses for this facet of practice. One study participant (Interviewee #2) agreed that individualized planning was essential on the survey yet described his beliefs to be more neutral when probed in the interview. There were low rates of neutrality and disagreement within the larger survey sample, and neutral was the low point of expressed belief in importance within the qualitative sample. Figure 7 presents the variation in responses on the importance of individualized planning for all students, as sampled from three survey items and the primary interview question from the individualized planning facet.

Figure 7

Side-by-Side Analysis of the Importance of Individualized Student Planning Delivered to All Students



Analysis of the Quantitative Findings: Schoolwide Events

The third subsection of Part 1 of the USIS asked high school counselors about their beliefs on the importance of the third facet of practice—schoolwide events—since COVID-19. This subsection included five items (Q12-Q16), designed to measure a range of school counselor beliefs. Table 7 presents the survey responses for the third facet by item, including item response percentages and medians.

Table 7*Facet of Practice 3: Schoolwide Events*

Item	Strongly Disagree (0)	Disagree (1)	Neutral (2)	Agree (3)	Strongly Agree (4)	Missing Values	Median
Q12	0 0%	0 0%	9 8.0%	44 38.9%	54 47.8%	6 5.3%	4.0
Q13	0 0%	1 .9%	8 7.1%	49 43.4%	49 43.4%	6 5.3%	3.0
Q14	0 0%	4 3.5%	15 13.3%	48 42.5%	40 35.4%	6 5.3%	3.0
Q15	0 0%	0 0%	3 2.7%	35 31.0%	68 60.2%	7 6.2%	4.0
Q16	0 0%	4 3.5%	5 4.4%	37 32.7%	58 51.3%	9 8.0%	4.0

As shown in Table 7, there were high rates of agreement with all the items within the schoolwide events facet. This resulted in a distribution of responses, with over 75% of respondents either agreeing or strongly agreeing with each of the five items. Approximately 92% of respondents agreed or strongly agreed that district/schoolwide mental health awareness events (Q15) are essential since COVID-19. Approximately 84%-87% of respondents agreed or strongly agreed that district/schoolwide transition-to-high school events (Q12), district/schoolwide postsecondary pathway events (Q13), and district/schoolwide cultural diversity education events (Q16) are essential since COVID-19. The only item in this facet (and one of only two in the entirety of Part 1 of the USIS) to receive less than 80% *agree* or *strongly agree* endorsement was Q14; approximately 78% of respondents agreed or strongly agreed that district/schoolwide college fairs are essential since COVID-19. *Neutral* responses and *disagree* responses were low overall in this facet. Only Q14 had a *neutral* response rate higher than 10% and three items (Q12, Q13, and Q15) had

disagree response rates below 1%. None of the items in this facet received *strongly disagree* responses. The lowest median in this facet was 3.0 and the highest median was 4.0.

Analysis of the Qualitative Findings: Schoolwide Events

The schoolwide events facet was also explored qualitatively by posing a single question to interviewees, followed by a series of probes to elicit additional insights. This interview question asked participants to share their beliefs on how important they thought schoolwide events are since the arrival of the COVID-19 pandemic. In the framing of the question, the researcher shared examples of typical schoolwide events asked about in the survey.

All six interview participants described schoolwide events as being important. The degree of importance ranged from “important” to “very important” when initially answering the question. Follow-up probes initiated by the researcher elicited the emergence or re-emergence of themes around the immediate need in school counselors’ practices to focus on (1) helping students establish or re-establish connections with their school community and (2) mental health/social-emotional learning interventions. These themes are discussed in Chapter Five. These probes also uncovered a deeper range of beliefs (including some level of skepticism) in some interviewees, not captured by their survey responses.

Interviewee #4 described schoolwide events for all students as being “important” since COVID-19, which aligned with her survey item responses for this facet of practice. Expanding on this, she described the importance of approaching students in different ways to engage and connect with students who might not otherwise be reached by school counseling services. Beyond this, she also spoke of the need in schools to re-establish a culture of

connection and community following the “isolating” experiences of the pandemic and distance learning.

At this point I think it is important. Why do I think it’s important? I think it’s important to have different delivery systems because I don’t expect that all people will say, ‘Oh, hey! I’m going to take advantage of whatever information is delivered.’ So, it’s a way to get people into the counseling office, or to seek out advice that they might not have considered. We don’t do that many of these events, but I know that based on what we did, there were students that would never have come into the counseling office that actually said, ‘hey, yeah, I saw you all at whatever event, and decided to come in and check in.’ And so that really helps because counselors, especially high school counselors, can be somewhat insulated. They’re usually not walking the campus and often aren’t visible, so these are a way to reach the kids that aren’t seeking us out in our offices—and so I think that’s a huge reason why they are so important. ‘There’s one more adult that I could possibly connect with, that I can share something that I’m struggling with. If I’m not sharing it with my parents, and I don’t have time to talk to my teacher, oh, I can go and stop and check in with my counselor.’ What I’ve observed is that schools are trying to get back to that . . . because it creates and contributes to a schoolwide culture. There’s something about an assembly that kind of builds solidarity, regardless of whether or not you’re goofing off. There’s something about just gathering in one place. So yeah, I think it’s important, probably even more so since the pandemic because a lot of students have been isolated. And they’re really crying out for that connection.

Interviewee #5 described schoolwide events for all students as being “very important” since COVID-19, which aligned with some of her survey item responses for this facet of practice. Expanding on this, she noted that there was a need to reconnect in schools and these events were important for that reason. Additionally, she described how some schoolwide event focus areas are more important than others, which may provide context to why her responses ranged from *strongly agree* to *disagree*. She believed that events focused on mental health and cultural diversity education were essential, while other focus areas were less definitively essential, which aligned with her survey item response variances for this facet of practice.

I think there is a big need for these. I think a lot of my students feel disconnected from school still, and I think they're very important for our students to get reconnected. I think we all were a little disconnected from each other during COVID and having in-person events, and you know, as a counselor, getting out there and being able to have facetime with my students and families. That's a really big part of what I do, and I think we lost that for a couple of years. And I think it's definitely important that we get back that involvement in school again. I think all of that has just been a little bit more needed because of the disconnect that we experienced during COVID. It's very important. And like I was saying before, wellness and inclusion-focused events—those types of things—I realize now how much more important those are.

Interviewee #6 described schoolwide events for all students as being “really important” since COVID-19, which aligned with her survey item responses for this facet of practice. Expanding on this, she discussed the value that these events hold in terms of connecting students and families to the school community and the need for this within the context of the COVID-19 pandemic.

It's really important for a lot of reasons, especially since the pandemic. There are still a lot of people that are just generally feeling disconnected. Having events is really important for bringing back a sense of culture on the campus and connection and community. I think that they are supportive to our counseling curriculum as well to make sure that all of our students and families are really informed and feeling like they are an integral part of the educational process.

Interviewee #3 initially described schoolwide events for all students as being “important” since COVID-19, which aligned with her survey item responses for this facet of practice. Expanding on this, she shared challenges that her team has with schoolwide events and how she believes (smaller) classroom lesson curriculum is more effective in reaching all students.

I think it's important. . .because obviously the information that we're sharing, we feel is important. . .but you know, when it's a schoolwide event, you don't always have 100% participation . . .So that's why I think we've gone to the length of—we go into the classrooms so that way we can reach them. And then there's way, way less students that don't get it because we are able to do that. And so that's kind of been like something that we've done, as opposed to ‘okay, we're gonna have these

workshops.’ I mean, we still have workshops and things like that. But we know that the amount of kids who are going to show up is higher in the classroom.

Interviewee #2 initially described schoolwide events for all students as being “quite important” since COVID-19, especially given the reality of the large caseloads that school counselors work with, which aligned with his overall survey item responses for this facet of practice. He did, however, stress his personal belief that the smaller, more individualized an intervention is, the better:

I guess I’m a believer in probably, you know, the smaller the better. So, I think the more you can do individually, the better. The more you can do small groups as opposed to classroom groups the better. The more you can do classroom as opposed to whole grade, the better. So, I don’t know how much effectiveness we have, you know, when we pull 475 kids into the theater, and walk through a slideshow, or something like that. You know a good number are just going to be on their phones. They’re not necessarily going to be processing or gaining from the instruction or the service that we’re providing. So, I would just say, smaller is better.

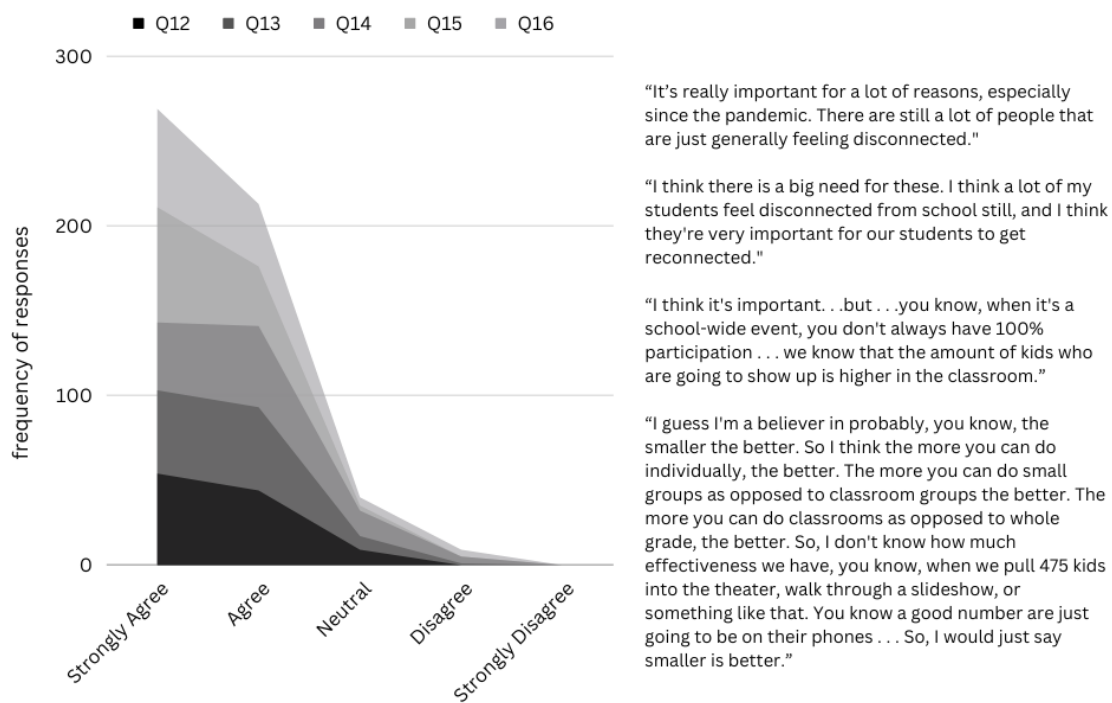
Analysis of the Quantitative and Qualitative Findings: Schoolwide Events

The quantitative and qualitative findings for the third facet revealed a similar pattern as the first two facets, presenting an overall picture of high levels of school counselor belief in the importance of schoolwide events since COVID-19. Quantitative results were disproportionately positive across survey respondents. For all six of the semi-structured interview participants, there was relatively strong alignment between their survey responses and their interview responses for this facet of practice. Three counselors, however, did express some levels of neutrality, skepticism, and conflicting beliefs when probed further by the researcher. Interestingly, this facet contained one of the two survey items that received less than 80% agreement, revealing a slightly more noticeable range of counselor beliefs within the responses. Further, unlike the first two facets, the interview respondents who

expressed levels of skepticism were closer to disagreement than in earlier facets, which aligns with a slight shift in survey response data. Figure 8 shows qualitative responses that align with quantitative responses demonstrating a range of beliefs expressed in both methods on the importance of schoolwide events since COVID-19.

Figure 8

Side-by-Side Analysis of the Importance of Schoolwide Events Delivered to All Students



Analysis of the Quantitative Findings: Parent Education Events

The fourth subsection of Part 1 of the USIS asked high school counselors about their beliefs on the importance of the fourth facet of practice—parent education events—since COVID-19. This subsection included five items (Q17-Q21), designed to capture a range of

school counselor beliefs. Table 8 presents the survey responses for the fourth facet by item, including item response percentages and medians.

Table 8

Facet of Practice 4: Parent Education Events

Item	Strongly Disagree (0)	Disagree (1)	Neutral (2)	Agree (3)	Strongly Agree (4)	Missing Values	Median
Q17	0 0%	2 1.8%	5 4.4%	41 36.3%	56 49.6%	9 8.0%	4.0
Q18	0 0%	3 2.7%	8 7.1%	44 38.9%	48 42.5%	10 8.8%	3.0
Q19	0 0%	4 3.5%	11 9.7%	45 39.8%	42 37.2%	11 9.7%	3.0
Q20	0 0%	1 .9%	9 8.0%	37 32.7%	55 48.7%	11 9.7%	4.0
Q21	0 0%	0 0%	5 4.4%	37 32.7%	60 53.1%	11 9.7%	4.0

As Table 8 shows, there were high rates of agreement with all items within the parent education events facet. This resulted in a distribution of responses, with over 75% of respondents either agreeing or strongly agreeing with each of the five items. Approximately 81%-86% of respondents agreed or strongly agreed that parent education events that focus on academic support resources (Q17), postsecondary pathways (Q18), social-emotional development (Q20), and mental health support resources (Q21) are essential since COVID-19. Only one item in this facet, Q19 (which was also the second item in all of Part 1 of the USIS), received less than 80% endorsement; 77% of respondents agreed or strongly agreed that parent education events that focus on college planning are essential since COVID-19. *Neutral* responses and *disagree* responses were low in this facet. Only Q19 had a *neutral* response rate of nearly 10% and two items (Q20 and Q21) had *disagree* response rates

below 1%. None of the items in this facet received *strongly disagree* responses. The lowest median in this facet was 3.0 and the highest median was 4.0.

Analysis of the Qualitative Findings: Parent Education Events

The parent education events facet was also explored qualitatively through a single guiding question to interviewees, followed by a series of probes. This question asked participants to share their beliefs on the importance of parent education events since COVID-19. The researcher again offered interviewees several examples of typical parent education events mentioned in the USIS survey when asking them the question.

All six interview participants described parent education events as being important. The degree of importance described included “important,” “very important,” and “super important” when initially answering the question. Follow-up probes initiated by the researcher elicited emergent themes related to the need for equity, connection, and mental health/wellness/social-emotional learning in interventions, as well as addressing gaps from distance learning. These themes are discussed in Chapter Five. The probes also elicited additional context and depth to counselors’ degree of beliefs, with four counselors building on their initially enthusiastic responses and two counselors providing additional dimensionality, including some levels of skepticism.

Interviewee #3 described parent education events as being “super important” since COVID-19, which aligned with her survey item responses for this facet of practice. She discussed the high number of students in her community who are newcomers and first-generation students, whose parents do not understand how high school works in the United States, and the need for parent education events to provide a foundation of understanding.

I mean, I think, that they are important in the sense that that's what's going to help our parents understand, you know, the needs of their children, and what needs to happen, I mean in all areas, not only like graduation expectations and behavior, but also like just in what's next, like what's going to happen once they graduate- like what are their options? That's why it's super important to have this communication and events for parents, so that they understand what's going on. We have a lot of first-gen and newcomer students that come through, and so their parents are kind of lost as to what's supposed to happen, and you know, why things are important. We have a lot of families too, where we deal with the 'but I need them to work' situation, and you know, kind of having to explain—what does it mean to be in school in the United States? You know, grading systems, and what credits mean and things like that. So definitely super important to have these things for parents.

Interviewee #6 described parent education events as being “really important” and “absolutely needed” since COVID-19, describing them as an antidote to disconnection, with particular focus on equity bridging for underrepresented or marginalized parents.

Absolutely, the economic disparity [makes these events important]. We have a really interesting population where half of my families are wealthy, and the other half are struggling to get by. And we happen to also be one of the campuses with many ELD students and newcomers. The disparity seems like a gulf between them. And so that is partly why it's so important to have these events, to bring these families together and create a sense of belonging. And now [since COVID] I think about it like it's also bringing everyone to the same, almost the same level. I mean just to give you an example, where you have a student who drives a Tesla next to a student who takes the bus to school—and those families are all families at the end of the day, who equally want their children to succeed, but have different means and foundations to do so. And these events are in some ways an equalizer in terms of getting everyone to a base of understanding of how to support their kids, and in some ways a means of equity to get everyone closer to the same starting line. That is absolutely needed. Always, and especially now, since COVID.

Interviewee #2 described parent education events as being “important” since COVID-19, which aligned with his survey item responses for this facet of practice. He described the need to educate parents on the emerging mental health and social-emotional issues that are presenting and intensifying in schools since the pandemic. He reported that the majority of parents in his school (which is largely focused on college admissions) continue to want

parent education related to college admissions, which makes it difficult to deliver educational content outside of that.

The [mental health] turmoil or whatever you want to call it—I think those needs have definitely increased. The hard part is if we try to move away from that [college focus] as a counseling group, and do more in that [wellness, social-emotional] space and less of you know, college info nights, and come learn more about the SAT and ACT and test optional and blah blah blah, we get a little bit of heat and push back of like, ‘Stay in your lane. . . that’s the information we want.’ So, it’s tough to, you know, work around that sometimes.

Interviewee #5 described parent education events as being “important” since COVID-19, while also noting that she questioned whether parents considered these as being important within COVID-19-related dynamics, particularly for parents who were less affluent. This juxtaposition offered some context to her mixed survey item responses for this facet of practice, which ranged from *strongly agree* to *disagree*.

For all students, I would say, yes, it’s important. It’s important, but at the same time, I feel like it’s really only the parents who are involved or privileged, and the students that have parents who are involved, that attend these things right now. And so, I don’t know that it’s really marketing itself for students whose parents maybe have a language barrier or maybe they work 2 or 3 jobs, and they’re just not able to spend that time like some other parents are . . . Also, this is the first year back [since COVID] that I’ve done parent events, and a lot of people still don’t want to go around large crowds. So, we’re seeing very small numbers of parents when we hold our events still. So, I think, yeah, it is important as a counselor. We need to get out there, but I think people are still a little bit afraid or they have a lot going on. So, I definitely see the value and the importance of it. I just don’t know how important parents think they are in the scheme of everything else they’re dealing with during or since COVID. I just don’t know.

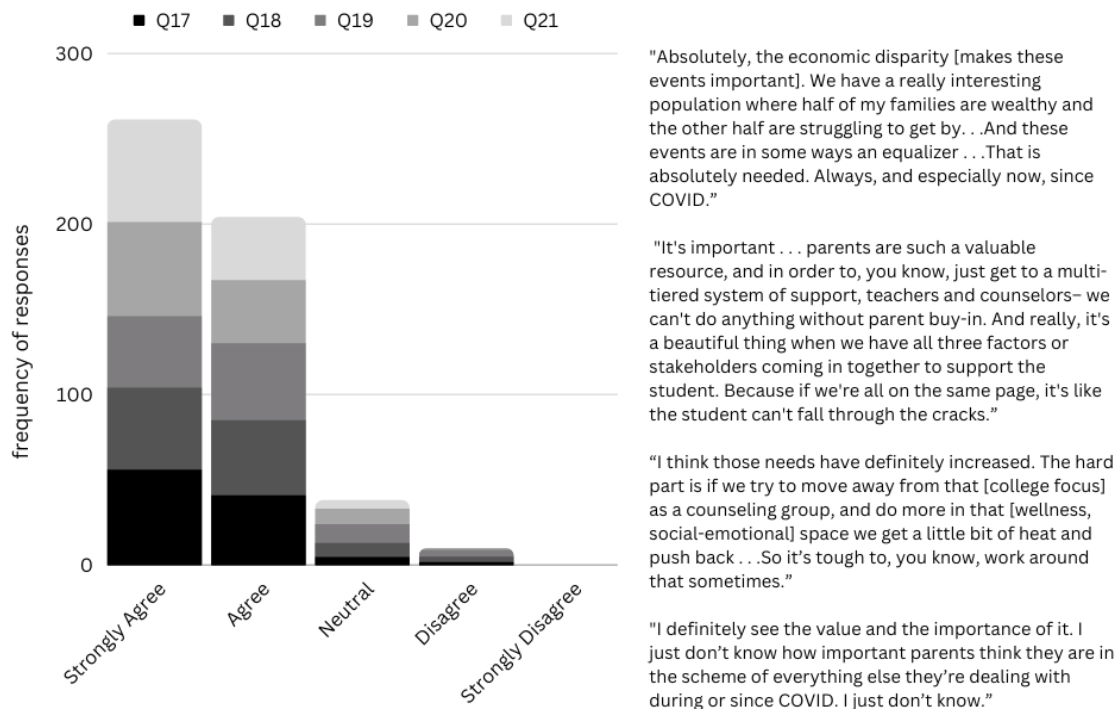
Analysis of the Quantitative and Qualitative Findings: Parent Education Events

The quantitative and qualitative findings for the fourth facet produced similar patterns as the other three facets, indicating high levels of belief in the importance of parent education events since COVID-19. Quantitative result distribution skewed heavily toward endorsement

of the importance of this type of intervention across survey respondents. Figure 9 shows qualitative responses that align with quantitative responses demonstrating a range of beliefs expressed in both methods on the importance of parent education events since COVID-19.

Figure 9

Side-by-Side Analysis of the Importance of Parent Education Events



For all six of the semi-structured interview participants, there was relatively strong alignment between their survey responses and their interview responses for this facet of practice. Two counselors, who agreed with the importance of parent education events on the survey, as well as their initial interview response, expressed some degree of neutrality, skepticism, and conflicting beliefs when probed further by the researcher. Overall, the

interview responses reflected the frequencies and ranges of beliefs observed in the survey response data throughout this facet.

Summary of Research Question One

In this section, results from the quantitative and qualitative data collection methods were presented. Quantitative data from 113 USIS respondents revealed a study sample that was diverse and relatively representative of California’s school counselor composition, as well as high levels of school counselor agreement with all items, across four facets of MTMDSS Universal Supports interventions in Part 1 of the USIS instrument. Qualitative data from 6 semi-structured interview participants revealed a sample that was relatively representative of the study sample as a whole, as well as relative alignment between interview responses and survey responses in each of the four facets of Universal Supports. Additionally, new themes emerged from the interviews that are discussed further in Chapter Five.

Results for Research Question Two

The second research question—can these [California high school counselors’] Universal Supports-based beliefs be measured reliably and is there validity evidence to trust the meaningfulness of the scores generated by the Universal Supports Importance Scale (USIS) instrument—explored the validity and reliability of the USIS.

Validity Evidence

Validity refers to “the degree to which evidence and theory support the interpretations of test scores for proposed uses of tests” (AERA et al., 2014, p. 11). As stated in Chapter Three, validity evidence allows the researcher to make meaningful inferences from the data collected. The Standards for Educational and Psychological Testing recognizes five types of

validity evidence: content validity evidence, response process validity evidence, internal structure validity evidence, relations to external variables validity evidence, and evidence of consequences validity (AERA et al., 2014). This section presents the findings for the three types of validity evidence collected to address this study's second research question.

Content Validity. Content validity evidence allows a researcher to examine the relationship between the content of an instrument and the construct that it intends to measure (AERA et al., 2014). The USIS was developed utilizing several strategies as checks for content validity. The study's construct—high school counselor beliefs on the importance of Universal Supports—was informed by a review of extant literature on beliefs, MTSS and MTMDSS frameworks, and the ASCA National Model for School Counseling's standards and competencies. Construct maps (Wilson, 2005) were developed and incorporated for the construct of high school counselor beliefs on the importance of Universal Supports to develop a framework for the construct being measured (see Appendix B). Items design was aligned to the construct maps and items were reviewed repeatedly, at each stage of development, by a panel of school counseling experts available to the researcher. This ongoing and iterative review process led to several improvements of the USIS items leading up to its deployment.

Response Process Validity. Response process validity evidence allows researchers to examine the assumed cognitive processes taking place in the use of a survey as well as understand how respondents interpret the survey's items (AERA et al., 2014). Two sources of response process validity evidence are reported in this section. The first source is the data collected from the exit interview section of the USIS. Response rate data and individual item

response data are reported below. The second source of response process validity evidence was collected through a panel think aloud protocol prior to the deployment of the USIS to study participants (see Appendix D). Both of these sources of validity evidence contributed to fine tuning of the USIS items to ensure it measured the construct and addressed the second research question.

Exit Interview Evidence. Response process validity evidence was collected through the survey's exit interview section. All 101 school counselors who completed the USIS responded to each of the exit interview questions. This high response rate allows the researcher to make substantive conclusions about the respondents' perceptions of the USIS instrument's items and the construct it claims to measure. The overall findings from the exit interview item responses were positive. 100% of the respondents reported that they had enough time to complete the survey and 87% found the questions to be clear. Additionally, on two of the exit interview questions, respondents gave detailed feedback on the USIS instrument, including suggestions for improvement.

The first exit interview question that elicited additional feedback from respondents was: "Were there any questions on this survey that were unclear?" A vast majority (87.1%) of school counselors responded that no items were unclear (see Table 9) although there were some interesting comments and themes among the exceptions. Five respondents expressed a general lack of clarity throughout the items related to the "since COVID-19" ending to each item (for example, Q6: "A districtwide high school counseling curriculum focused on mental health and well-being delivered to all students is essential since COVID-19.") Respondent #146 stated, "Every question asks 'since COVID', but all of these items were just as

important before COVID.” Respondent #126 shared, “I would have the same response if you dropped since COVID.” Respondent #156 also noted, “I am concerned that all the things being asked were necessary prior to COVID-19, not just since COVID-19.” Respondent #119 also added, “My only problem was with the ‘since COVID’, as I believe all the mentioned services are vital ALL the time.”

Table 9

Selected Exit Interview Items/Responses

Item	Prompt	Responses	
		n (%)	
		Yes	No
Q40	Were there any questions on this survey that were unclear?	13 (12.9%)	88 (87.1%)
Q41	Did you have enough time to complete all the questions?	101 (100%)	0 (0%)
Q43	Do you have any suggestions for improving the survey?	17 (16.8%)	84 (83.2%)

The second exit interview question that allowed for additional commentary asked, “Do you have any suggestions for improving the survey?” Most respondents (83.2%) answered that they did not have suggestions (see Table 9); however, interestingly, among the 17 respondents who did have suggestions, 6 expressed concerns with the use of “since-COVID-19” at the end of each item. It is also interesting to note that these were not the same respondents who made similar comments in the previous exit interview item. Respondent #120 expanded on their fixed choice response by adding, “It should have given us the option about how we felt the need was prior to COVID-19, not only after. I felt like many of those were needed even before COVID. That is why my responses were not as strong because I don’t think they are in need as a result of COVID. I think they were needed before.”

Respondent #164 stated, “All my answers are true before and after COVID. I don't think these are needs that occurred after COVID.” It appears that a small percentage of respondents interpreted, “since-COVID-19” to mean that an item was asking if a support intervention was only essential since the pandemic, which may have created confusion for these respondents, and thus, validity implications for their responses. Additional comments included suggestions for word clarity. Respondent #131 noted, “‘Events’ is very broad. More specifics would be helpful.” Respondent #144 stated, “Verbiage could be more clear. For example: ‘District/schoolwide parent education events focused on mental health support resources are essential since COVID-19.’ I wasn’t sure if this question is asking whether we provided that to parents or if we think it’s important to provide.”

The respondents’ exit interview observations about the USIS instrument items provide the researcher with useful information in the effort to interpret the evidence for internal structure. The exit interview section’s high response rate, along with respondents’ detailed recall of individual items and specific commentary on items support the researcher’s inclusion and consideration of this validity evidence in the ongoing evaluation of the USIS design.

Panel Think Aloud Evidence. Further response process validity was generated through a panel think aloud protocol. The panel, consisting of current California high school counselors, went through the survey item-by-item and offered their interpretations, concerns, and suggestions for improving the items in an iterative process with each other and the researcher. Notes from this panel think aloud were collected on a spreadsheet (see Appendix D). This evidence document was next discussed and triangulated by the study’s expert panel,

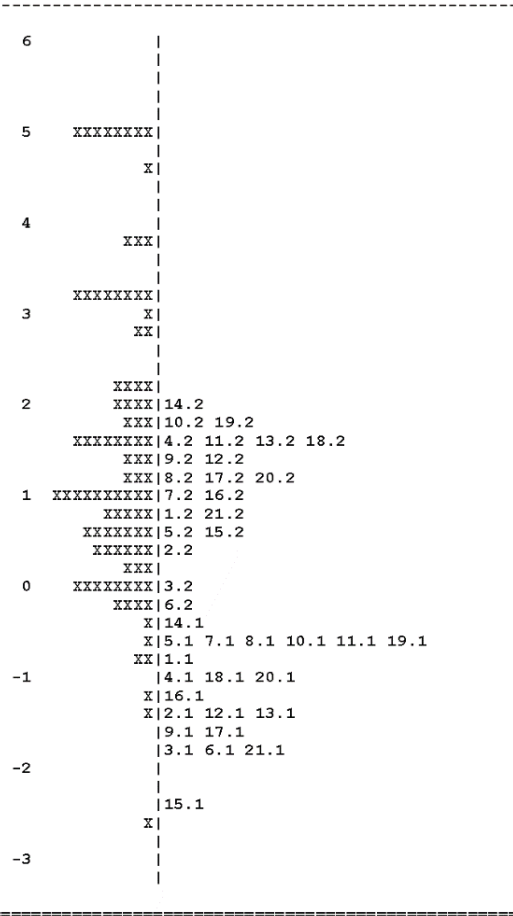
as an additional validity checkpoint. These checks for validity led to changes in survey items prior to the deployment of the USIS to ensure that all items were clear and measured the intended construct.

Internal Structure Validity. Internal structure validity evidence examines the patterns in item responses to consider the relationship between the item and the construct. This type of validity evidence allows the researcher to know the degree to which the instrument measures what it intends to measure (AERA et al., 2014). This study employed four forms of internal structure validity evidence in support of the item design of the USIS: a Wright Map, a partial credit model item fit analysis, and a Differential item functioning (DIF) analysis. These four types of evidence for internal structure validity are examined in this section.

The Wright Map. The Wright map was generated with ConQuest software and represents the unidimensional scale of the USIS. The left side of the Wright map represents USIS respondents at various levels of belief and is referred to as person proficiencies. The right side of the Wright map represents the probability of individual USIS items to be endorsed by respondents at each belief logit level, referred to as item thresholds. The distribution of respondent and item locations shown in Figure 10 is on a single logit scale.

Figure 10

Wright Map of Person Proficiencies and Item Thresholds for the USIS Scale



Although the outcome space for the USIS had five categories, data from these categories were collapsed into three by the researcher prior to IRT analysis to better fit with the Rasch model (Andrich, 1996; Hagquist & Andrich, 2004). Thurstone Thresholds can be interpreted as the points at which the probability of the scores below that location is equal to the probability of the score at and above it (and that probability is 50%) (Wilson, 2005). For example, when looking at the map, item 14.2, (“x.y”) is used to indicate the y-th threshold (“2”) of the x-th item (“14”). Each step threshold is plotted at the point where the respondent has a 50% chance of achieving at least the indicated level of performance on that individual item. The range of item locations was approximately -2.4 to 2 logits.

The relationship between the left and right side of the Wright map above indicates that the respondents are not covered across their entire range by the item thresholds, particularly on the higher end of the school counselor belief logit scale. As seen in the raw score data, the majority of respondents scored relatively high on the USIS instrument (98 of the counselor respondents were positively scaled on the USIS and 17 were negatively scaled), which is reflected in the item threshold distributions on the Wright map that are relatively more difficult to reach. In particular, approximately 95 (83%) of the respondents were 50% or more likely to achieve the third step (.2 = *strongly agree*) on the most difficult to endorse items. Conversely, the first step (.0 = *disagree – neutral*) on all 21 items was 50% or more likely to be achieved by all respondents with the lowest proficiency. The second step (.1 = *agree*) was 50% or more likely to be achieved by nearly all respondents with the lowest proficiency. This distribution indicates that overall, most respondents found most items easy to endorse. This finding suggests that the addition of more difficult to endorse items or the

revision of some of the existing items may be needed to better distinguish the full range of school counselor beliefs.

Model Fit. Additional internal structure validity evidence was collected through a partial credit model to generate an item fit analysis. Investigation of item fit plays a central role in evaluating the measurement model used to examine the USIS data. Table 10 provides the parameter estimates, standard errors, and mean square weighted fit and t statistics for the partial credit model applied to the USIS instrument data. For purposes of clarity, the unweighted fit statistics are not reported. Weighted fit statistics offer a more relevant indicator for overall model fit analysis.

Table 10

Item Parameter Estimates, Standard Errors, and Mean Square Weighted Fit and t Statistics for the USIS Scale

Items	<u>Variables</u>		Infit Mean Square	<u>Weighted Fit</u>		Infit t
	Estimate	Error		Confidence Interval		
Q1	0.012	0.180	1.05	(0.73, 1.27)		0.4
Q2	-0.396	0.213	1.15	(0.71, 1.29)		1.0
Q3	-0.823	0.258	0.94	(0.68, 1.32)		-0.4
Q4	0.251	0.188	1.14	(0.75, 1.25)		1.0
Q5	-0.007	0.176	1.12	(0.73, 1.27)		0.8
Q6	-0.891	0.260	1.06	(0.65, 1.35)		0.4
Q7	0.185	0.174	1.22	(0.74, 1.26)		1.6
Q8	0.300	0.172	1.09	(0.75, 1.25)		0.7
Q9	-0.047	0.216	0.96	(0.74, 1.26)		-0.3
Q10	0.647	0.173	0.89	(0.75, 1.25)		-0.9
Q11	0.523	0.177	1.08	(0.75, 1.25)		0.6
Q12	0.013	0.208	1.05	(0.74, 1.26)		0.4
Q13	0.119	0.209	0.88	(0.74, 1.26)		-0.9
Q14	0.820	0.175	0.99	(0.75, 1.25)		-0.0
Q15	-0.906	0.323	0.98	(0.73, 1.27)		-0.1
Q16	-0.070	0.207	0.96	(0.73, 1.27)		-0.2
Q17	-0.186	0.226	0.95	(0.73, 1.27)		-0.3
Q18	0.292	0.197	0.86	(0.74, 1.26)		-1.1
Q19	0.611	0.183	0.88	(0.74, 1.26)		-0.9

(table continues)

Table 10. (continued)

Q20	0.043	0.201	1.03	(0.73, 1.27)	0.3
Q21	-0.489*	0.259	0.97	(0.72, 1.28)	-0.1

Note. An asterisk next to a parameter estimate indicates that it is constrained.

In analyzing Table 10 and investigating model fit for the USIS, the approach taken in this study is to examine the residuals, which is the difference between the observed score and the expected score for individual items and respondents. Through this process, the appropriateness of the measurement model can be evaluated. It is not required for all items to align perfectly with the construct; however, items should be relatively aligned across the instrument as a whole (Wilson, 2005).

The analysis of both item and respondent fit relies on the examination of the mean square fit and weighted t statistics (Wright & Masters, 1982). Generally, item fit values greater than 1.0 that indicate measurement model misfit, are of most importance to the internal structure validity argument, in part, because they signal that an item contributes less to the overall estimation of the latent variable or construct; whereas item fit values less than 1.0 are less important because they indicate better than expected estimation of the construct (Wright & Masters, 1982). There is no absolute limit to determine a good mean square value; however, researchers have developed criteria for commonly accepted lower bounds (0.75) and upper bounds (1.33), in determining model misfit (Adams & Khoo, 1996; Wilson, 2005). The results and analysis of the weighted mean square fit and t statistics support the finding that all of the USIS instrument items fit the partial credit model well. As Table 10 shows, all of the USIS item's mean square values are within the lower and upper boundaries. Thus, no misfitting items were identified.

IRT Analysis. IRT item analysis provided further internal structure validity evidence collected within this study. Item Statistics and General Item Analyses provided by ConQuest allowed the researcher to investigate how the items were functioning on the survey. As previously stated, data from the USIS's 5-category outcome space were collapsed into three by the researcher prior to IRT analysis to better fit with the Rasch model (Andrich, 1996; Hagquist & Andrich, 2004). The general results of the item analysis suggest that individual items across the USIS instrument were generally stable and consistent (see Appendix I). The data tables below demonstrate an example of a USIS instrument item that did not fit, as well as an example of an item that did fit. Each data table includes the number of response categories for each item, the count of respondents (count) for each item, the percentage of students who answered in each response category, and the point bi-serial correlation for each response category. Response category 0 represents school counselors that disagreed or were neutral; response category 1 represents school counselors that agreed; and response category 2 represents school counselors that strongly agreed.

The item analysis in this section focuses on the mean person location in each of the response categories. In general, it is expected that respondents higher on the USIS scale will score higher on each item (Wilson, 2005). The plausible value averages for each response category can be used to identify problems with individual items that may not be consistent with the USIS instrument. The analysis of the mean person locations for all items indicated that 20 of the 21 items displayed well-functioning mean locations. One item, Q6, displayed a lack of consistency.

The item analysis for Q6, shown in Table 11, demonstrates issues of consistency. Mean locations in the 0 response category start at the 0.72 logit level, decrease to the 0.22 logit level as the response category increases to 1, and then increases to the 1.85 logit level in response category 2. This suggests that item Q6 is not aligning with the broader USIS instrument.

Table 11

Item Statistics for Q6 (Curriculum on Mental Health and Well-being is Essential)

Statistics	Response Categories		
	0	1	2
Count	5	21	87
Percent	4.42	18.58	76.99
Pt-Biserial	-0.13	-0.49	0.52
Mean Location	0.72	0.22	1.85
Std. Dev. Of Location	1.04	0.90	1.39

In contrast to Q6, the other 20 items of the USIS follow a well-functioning mean location pattern as demonstrated in Table 12 for item Q8. Review of Q8 shows the mean location of student responses on the USIS scale within the 0 category was at the 0.22 logit level, increasing to the 0.83 logit level within the 1 category and increasing again to the 2.26 logit level within the 2 category.

Table 12

Item Statistics for Q8 (Individualized Planning on Course Selection is Essential)

Statistics	Response Categories		
	0	1	2
Count	16	36	60
Percent	14.29	32.14	53.57
Pt-Biserial	-0.38	-0.27	0.52
Mean Location	0.22	0.83	2.26
Std. Dev. Of Location	1.13	0.85	1.38

Overall, the results of the item analysis for the USIS instrument show that all but one of the 21 individual items are consistent with the instrument as a whole. Item 6 should be examined to determine if there is an explanation for its inconsistency with the USIS (Wilson, 2005). One possible explanation was the item's focus on mental health interventions. The researcher learned from other items as well as the qualitative phase that student mental health was a significant focus for counselors since the arrival of the COVID-19 pandemic. It is possible that this item received higher levels of endorsement from respondents scoring lower on the USIS scale overall because they were responding to the domain of mental health rather than the broader facet of school counseling curriculum. This inconsistent pattern did not replicate in other items where mental health was asked about, however, in some mental health-related items, the mean location increase across response categories was smaller than in other items.

DIF Analysis. Differential item functioning (DIF) occurs when different groups of examinees with similar overall ability have, on average, systematically different responses to a particular item (AERA et al., 2014). Within the context of the Rasch measurement model, an item is deemed to exhibit DIF if the response probabilities for that item with respect to the groups cannot be fully explained by the ability of the respondent and a fixed set of difficulty parameters of that item (Wu et al., 1998).

The purpose of conducting a DIF analysis on the USIS instrument is to determine the degree to which the validity evidence collected in this section supports the item design. This can be carried out for any grouping variable deemed important; in this case, the researcher chose to examine gender and ethnicity DIF because the instrument is intended to measure

diverse respondents that are representative of California's school counselor population. Item, gender, and ethnicity parameters were estimated with an assumed population Gaussian distribution. The sample size was 113. The gender DIF model examined the following terms: (a) item, (b) gender, and (c) item and gender by step. The ethnicity DIF model examined the following terms: (a) item, (b) ethnicity, and (c) item and ethnicity by step. Tables for each of these model terms were generated and evaluated. The partial credit model yielded statistical information related to both person and item fit. Data on person and item parameter estimates, including thresholds and separation indices, were calculated but are not reported given the nature of this dissertation. The results from a multi-faceted Rasch IRT analysis of the polytomous data are presented below.

The first DIF analysis examined the interactions, if any, between gender identity, item, and step parameters. For the purposes of this type of analysis, which requires binary response data, every respondent who identified as male on the USIS was included in the "male" group and every respondent who identified as female was included in the "female" group. Although additional gender identity category options were available on the USIS, no respondents selected them within this sample. Table 13 shows the estimated mean proficiencies of the male and female respondents in the study.

Table 13

Estimated Mean Proficiencies of the Male and Female Respondents

<u>Variables</u>		
Gender	Estimate	Error
Male (0)	-0.095	0.116
Female (1)	0.095*	0.116

Note. An asterisk next to a parameter estimate indicates that it is constrained.

Chi-square test of parameter equality = 0.66, df = 1.

The results shown in Table 13 indicate that the male respondents performed about as well as the female respondents on the USIS instrument. That is, male respondents scored approximately 0.095 logits lower than female respondents on the USIS scale. This parameter estimate (0.19) is within its standard error (0.227) at the 95% confidence level and hence is not statistically significant. The Chi-square value of 0.66 on one degree of freedom is consistent with this finding. The effects of random chance alone may explain the difference in scores between male and female respondents on the USIS instrument.

The second DIF analysis examined the interactions, if any, between race/ethnicity identity, item, and step parameters. For the purposes of this type of analysis, which requires binary response data, every respondent who identified as White on the USIS was included in the "White" group and every respondent that identified as American Indian/Alaska Native, Asian, Black/African American, Hispanic or Latino/a/x, Native Hawaiian or Pacific Islander, or who chose to self-identify, was included in the "Underrepresented Groups" group. Table 14 shows the estimated mean proficiencies of the White and Underrepresented Groups respondents in the study.

Table 14

Estimated Mean Proficiencies of the White and Underrepresented Respondent Groups

<u>Variables</u>		
Ethnicity	Estimate	Error
White (0)	0.006	0.088
Underrepresented Groups (1)	-0.006*	0.088

Note. An asterisk next to a parameter estimate indicates that it is constrained.

Chi-square test of parameter equality = 0.01, df = 1.

The results shown in Table 14 indicate that the White respondents performed about as well as the Underrepresented Groups respondents on the USIS instrument. That is, the Underrepresented Groups respondents scored approximately -0.006 logits lower than White respondents on the USIS scale. This parameter estimate (0.012) is less than half its standard error (0.176) and hence is not statistically significant. The Chi-square value of 0.01 on one degree of freedom is consistent with this finding. The effects of random chance alone may explain the difference in scores between White and Underrepresented Groups respondents on the USIS instrument.

To decide whether any of these differences are evidence for DIF, confidence intervals at the 95% level were constructed around the male and female identified (gender) and White and Underrepresented Groups-identified (ethnicity) subgroup thresholds to determine whether they overlap. According to Wilson (2005), any differences can be subjected to the “effect size” test. A standard of effect size for Rasch models is reported: a logit difference value less than .426 is “negligible,” a value between .426 and .638 is “intermediate,” and a

value over .638 is “large” (Paek, 2002). For this study, gender DIF was negligible (-0.095). Similarly, the ethnicity DIF was negligible (-0.006).

The results of the partial credit model fit, Rasch IRT item analysis, and Differential item functioning (DIF) analysis presented in this section provide strong evidence for the quality of the overall item design for the USIS instrument.

Reliability Evidence

Internal consistency coefficients are one of the three widely recognized methods of exploring reliability and involves “the relationships/interactions among scores derived from individual items or subsets of items within a test, all data accruing from a single administration” (AERA et al., 2014, p. 37). This study generated Cronbach’s alpha and Person separation coefficients to document the reliability of the USIS instrument. AERA recognizes that multiple reliability coefficients can be useful because “different coefficients convey different information” (AERA et al., 2014, p. 38).

In classical test theory, Cronbach’s alpha is accepted as an indicator of internal consistency, particularly with polytomous response data, as was used in this study (Cronbach et al., 1951). In Rasch IRT modeling, a comparable indicator of internal consistency is person separation reliability (Wright & Masters, 1982). Each of these indicators examine the proportion of variance accounted for by the model (Wilson, 2005). Table 15 shows the internal consistency reliability coefficients for the USIS instrument.

Table 15

Internal Consistency Reliability Coefficients

Scale	Coefficient Values I	
	Cronbach's alpha	Person Separation
USIS	0.84	0.847

In the absence of any absolute or clearly defined standards for what are acceptable levels of reliability evidence, any reliability coefficient above .8 is widely considered acceptable evidence of an instrument's internal consistency (Bryman & Cramer, 2011). The reliability evidence based on internal consistency coefficient values shown in Table 15 suggests that the USIS is a reliable indicator ($r = .85$) of high school counselor beliefs and supports the scale's limited use in future research.

Summary of Research Question Two

Three types of validity evidence were collected in this study to validate the USIS instrument: content validity evidence, response processes validity evidence, and internal structure validity evidence. These types of validity evidence were presented in this section and demonstrated that (1) most respondents found survey items to be clear and understandable, (2) most respondents had high levels of belief as measured by the USIS and found USIS items easy to endorse, (3) individual survey items fit consistently with the overall USIS instrument, and (4) Differential item functioning (DIF) was not present by gender or ethnicity.

One type of reliability evidence—internal consistency—was collected in this study to assess the reliability of the USIS. Two different reliability coefficients were collected, Cronbach's alpha and person separation. Each coefficient showed acceptable levels of

reliability in the instrument. Based on the validity and reliability evidence presented, it is the proposition of this study that the USIS instrument could be used in a limited role to measure high school counselor beliefs on the importance of MTMDSS Universal Supports.

Results for Research Question Three

The third research question—which variables, if any, predict/explain California high school counselor’s Universal Supports-based beliefs—was addressed using linear regression analyses of the data, which was conducted with SPSS software. Based on the review of the literature, it was hypothesized that school demographic variables, such as urbanicity of school community and student populations’ socio-economic status would relate to school counselor beliefs on the importance of MTMDSS Tier 1 interventions since COVID-19. It was also anticipated that school counselor demographic variables, such as years of service and professional organization membership would relate to their degree of belief in the importance of MTMDSS Universal Supports.

Three separate regression analysis models were utilized in this study to address the third research question and explore the different possible interactions between predictor variables and the outcome variable. In total, seven explanatory variables were used in differing combinations within the different linear regression models: (1) urbanicity of school community, (2) percentage of students who qualify for free and reduced lunch (socioeconomic indicator), (3) number of years worked as a school counselor, (4) professional membership in the California Association of School Counselors (CASC), (5) gender identity of school counselor, (6) race/ethnicity identity of school counselor, and (7) age of school counselor. In all three models, the dependent variable was the degree of school

counselors’ belief in the importance of MTMDSS Universal Support interventions, as measured by the USIS. To meet the assumptions of linear regression modeling, the dependent and independent variables should be quantitative. The seven independent categorical variables were recoded to binary (dummy) variables to meet this requirement. The three regression analysis models and their results are discussed below.

Regression Analysis Model 1

The first regression analysis model employed a simple (single variable) linear regression, to examine the potentially predictive individual relationships between each of the seven explanatory variables and the dependent variable, school counselor beliefs (Ravid, 2020). Table 16 presents the results for this regression analysis model.

Table 16

Regression Model Summary for Simple Linear Regression (Regression Model 1)

Model	Explanatory Variable	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	Urbanicity of school community	1.83	.033	.024	1.579
2	Percentage of students qualify free/reduced lunch	.061	.004	-.006	1.603
3	Years worked as a school counselor	.007	.000	-.010	1.606
4	CASC membership	.006	.000	-.010	1.606
5	Gender identity of school counselor	.109	.012	.002	1.596
6	Ethnicity/race identity of school counselor	.041	.002	-.009	1.605
7	Age of school counselor	0.14	.000	-.010	1.606

As Table 16 shows, each of the individual, independent variables have a low R Square value, indicating that each of them “explains” less than 5% of the variation in the USIS degree of counselor belief in the importance of Universal Support interventions. The urbanicity of school community was the highest R Square value at .033. Several other explanatory values were at or close to .000 R Square value. Thus, it is not reasonable to

conclude from these analyses that any of these variables affect the degree of school counselor beliefs on the USIS.

Regression Analysis Model 2

The second regression model utilized to address this research question was a multiple linear regression using a complete model of all seven independent variables. Multiple linear regression allowed the researcher to explore the potential relationship between multiple predictor variables and school counselor beliefs as measured by the USIS (Ravid, 2020). Results for this regression analysis model are shown in Table 17.

Table 17

Regression Model Summary for Multiple Linear Regression (Regression Model 2)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.216	.047	-.028	1.620

The independent predictor values in this model summary include: (1) urbanicity of school community, (2) percentage of the school’s student population who qualify free and reduced lunch, (3) number of years worked as a school counselor, (4) school counselor membership in CASC, (5) gender identity of school counselor, (6) ethnicity/race identity of school counselor, and (7) age of school counselor. As Table 17 shows, together, these seven independent variables “explain” only approximately 4.7% of the variation of degree of school counselor beliefs on the USIS. Thus, it is not reasonable to conclude from this analysis that these combined explanatory variables affect the degree of counselor beliefs on the USIS.

This model also examined the regression coefficient B, standard error of B, standardized coefficient beta, t value for B, and two-tailed significance level of t. The estimated effects of the explanatory variables on the response variable (USIS scale score) are shown in Table 18.

Table 18

Effect of Explanatory Variables on USIS Scale Scores for Regression Model 2

Variable	Unstandardized Regression Coefficient (B)	Standard Error (B)	Standardized Regression Coefficient Beta	t	Sig.
(Constant USIS Scale Score)	.950	.530		1.793	.076
Urbanicity of school community	.717	.413	.188	1.737	.086
Percentage of students qualify free/reduced lunch	-.049	.362	-.015	-.134	.894
Years worked as a school counselor	-.017	.511	-.004	-.033	.974
CASC membership	.105	.354	.033	.295	.769
Gender identity of school counselor	.440	.418	.114	1.053	.295
Ethnicity/race identity of school counselor	.017	.353	.005	.048	.962
Age of school counselor	.041	.436	.012	.093	.926

As Table 18 shows, there were no statistically significant relationships identified between any of the independent variables and school counselor beliefs at the $\leq .05$ level. As was the case in the simple linear regression analyses, the independent variable closest to levels of statistical significance was urbanicity of the school community, with a p value of .086.

The researcher also included collinearity diagnostics in this analysis to check for multicollinearity. Multicollinearity is when two or more independent variables included in a regression model are highly correlated, leading to unstable and unreliable estimates of regression coefficients (Johnston et al., 2018). Variance Inflation Factor (VIF) is widely used to diagnose problems with multicollinearity. VIF has a lower bound of 1 and no upper limit. Research authorities vary on acceptable VIF threshold levels, with some considering a VIF of more than 10 as an indicator for problems with multicollinearity, while more conservative

authors suggest a VIF of less than 2.5 is preferred and indicates little or no multicollinearity in a regression model (Allison, 1999; 2012; Johnston et al., 2018). In developing this regression model, the researcher was concerned that multicollinearity might exist within the large number of independent variables included in the analysis, so he decided to include diagnostics. The results of the collinearity diagnostics for this regression model are presented in Table 19.

Table 19

Results from Collinearity Diagnostics for Regression Model 2

Explanatory Variables	Tolerance	VIF
Urbanicity of school community	.908	1.101
Percentage of students qualifying for free/reduced lunch	.825	1.212
Years worked as a school counselor	.595	1.682
CASC membership	.868	1.152
Gender identity of school counselor	.911	1.097
Ethnicity/race identity of school counselor	.882	1.134
Age of school counselor	.606	1.650

As Table 19 shows, VIF for all 7 variables in this multiple linear regression analysis were below 2.5, which suggests that there were no problems with multicollinearity within this analysis.

Regression Analysis Model 3

The third regression model utilized multiple linear regression, with a reduced number of independent variables. For this analysis, (1) urbanicity of school community, (2) percentage of student populations who qualify for free and reduced lunch, and (3) number of years worked as a school counselor were used. The researcher was interested in examining whether a reduced number of independent variables would have an effect on the

predictability/explanation of the dependent variable. The researcher hypothesized that this would produce only minimal differences in R Square and p values. Although collinearity diagnostics in the second regression model showed no problems with multicollinearity, the researcher also included this diagnostic in this analysis. Table 20, Table 21, and Table 22 present the results of this regression analysis model.

Table 20

Regression Model Summary for Multiple Linear Regression (Regression Model 3)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.184	.034	.004	1.595

Table 21

Effect of Explanatory Variables on USIS Scale Scores for Regression Model 3

Variable	Unstandardized Regression Coefficient (B)	Standard Error (B)	Standardized Regression Coefficient Beta	t	Sig.
(Constant USIS Scale Score)	1.311	.379		3.455	<.001
Urbanicity of school community	.681	.391	.179	1.742	.085
Percentage of students qualify free/reduced lunch	.048	.328	.015	.145	.885
Years worked as a school counselor	.023	.379	.006	.062	.951

Table 22

Results from Collinearity Diagnostics for Regression Model 3

Explanatory Variables	Tolerance	VIF
Urbanicity of school community	.933	1.072
Percentage of students qualifying for free/reduced lunch	.928	1.078
Years worked as a school counselor	.994	1.006

Table 20, Table 21, and Table 22 show that there were only minimal differences in R Square percentage, p value, and VIF when reducing the number of explanatory variables to

the three selected for this regression model. Together, these three independent variables “explain” a smaller percentage (only approximately 3.4%) of the variation of degree of school counselor beliefs on the USIS than in the second regression model with seven independent variables. Thus, it is not reasonable to conclude from this analysis that this combination of independent variables affects the degree of school counselor beliefs on the USIS. As Table 22 shows, VIF levels remained low (lower than the second regression model and once again, below 2.5), and tolerance levels remained high, indicating that there were no problems with multicollinearity within this analysis.

Summary of Research Question Three

Three regression analysis models including simple linear regression and multiple linear regression were used to address this study’s third research question. All three analyses revealed no statistically significant relationships between the explanatory variables and school counselor beliefs. Collinearity diagnostics were conducted and revealed no problems with multicollinearity on the multiple linear regression models. These results are discussed further in the next chapter.

Chapter Five: Discussion

Summary of the Study

As previously stated, school counseling supports have evolved over time in connection with national events of educational significance and emerging school counselor beliefs (Baker, 2011; Blake, 2020; Hatch et al., 2015; Lambie & Williamson, 2004). The U.S. onset of the COVID-19 pandemic in 2020 brought immediate and unprecedented disruption to California secondary education. High school students in California have endured varying degrees of uncertainty, hardship, and trauma, with the full extent of impacts on students not yet known (Goldhaber et al., 2022; Jack et al., 2021; Minkos & Gelbar, 2020). California high school counselors, faced with the dilemma of how to support student needs effectively and equitably during COVID-19, have looked to the state as well as professional organizations for guidance on best support practices.

Pre-pandemic multi-tiered support frameworks, such as Multi-Tiered System of Supports (MTSS) and its school counseling-specific derivative, Multi-Tiered, Multi-Domain System of Supports (MTMDSS) have emerged as prominent COVID-19 response recommendations and are being implemented in school districts throughout California. The implementation and use of MTSS/MTMDSS by school counselors presupposes a belief in these systems.

The literature reviewed for this study provided an imperative for this work and guided the development of this study's construct, research questions, and methodology. Extant literature revealed that school counselor beliefs are an important construct to measure because (1) beliefs can impact behavior and predict the successful implementation of educational programs (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975; Sink & Yillik-Downer, 2001),

(2) beliefs can be impacted by significant events (Catlin & Epstein, 1992), and (3) measuring school counselor beliefs has historically played a fundamental role in the evolution of the school counseling profession, including standards and best practices (Hatch & Chen-Hayes, 2008). The literature review also documented the increasing prevalence of MTSS/MTMDSS in California public education, including within the school counseling profession, as a response to COVID-19. Finally, this review highlighted significant gaps in the literature focused on school counselor beliefs and multi-tiered support frameworks.

The purpose of this study was to explore and measure California high school counselor beliefs about the importance of MTMDSS Universal Supports since the onset of the COVID-19 pandemic. Measuring the beliefs of the school counseling professionals who are being tasked in California with delivering multi-tiered support services to students is an important step to gain insight into the probability of effective implementation of MTMDSS by school counselors. This explanatory sequential mixed methods study explored and measured school counselor beliefs primarily through the researcher-developed USIS survey instrument and secondarily through a semi-structured interview protocol. To ensure its efficaciousness as an instrument and scale, this study also sought to validate the USIS instrument for future use, which involved robust validation and reliability protocols informed by measurement experts in the field (Andrich, 1996; Duckor et al., 2009; Wilson, 2005; Wright & Masters, 1982). This chapter discusses implications for each of this study's three research questions and presents the relevant conclusions and recommendations that emerged.

Summary of RQ1: Implications

This study's first research question was: What are California high school counselors' beliefs about the importance of Multi-Tiered, Multi-Domain System of Supports (MTMDSS) (Tier 1) Universal Supports since the onset of the COVID-19 pandemic? This question was designed to support the researcher's goal of better understanding school counselors' beliefs on the first tier of the MTMDSS framework. This research question was addressed through the collection of quantitative and qualitative data throughout this mixed methods study.

Quantitative data were collected through the researcher-designed survey instrument, the Universal Supports Importance Scale (USIS) for High School Counselors. Part 1 of the USIS addressed the first research question through the deployment of 21 fixed choice survey items, designed to measure four main facets of MTMDSS Universal Supports: (1) school counseling curriculum, (2) individualized student planning, (3) schoolwide events, and (4) parent education events. Descriptive statistics/frequency analysis indicated high levels of agreement in the importance of Universal Supports interventions amongst the 113 high school counselor respondents across all four facets. Responses of neutrality or disagreement were very low overall, and there were no responses of strong disagreement for any of this section's 21 items.

Qualitative data were collected through a semi-structured interview protocol designed and conducted by the researcher. This protocol was designed to triangulate the response data from the USIS survey and to elicit deeper understanding of high school counselor beliefs on the importance of MTMDSS Universal Supports. The interview protocol followed a similar structure to Part 1 of the survey, in that it asked high school counselors about the importance

of each of the four facets of practice within Universal Supports as outlined above. Interviews were transcribed, coded, and analyzed manually and with data analysis software. Results from the 6 interviews suggested high levels of belief in the importance of Universal Supports across each of the four facets. Similar interview response distribution patterns occurred as in the survey, where the majority of responses indicated that Universal Supports interventions were important since COVID-19, with only low levels of skepticism overall. Further, the researcher was able to compare interviewee's survey and interview responses, which revealed relatively close alignment for all 6 interviewees. Like the survey data, there were no *strongly disagree* responses on the importance of these support interventions. In some instances, interview protocol probing by the researcher revealed new layers of skepticism and conflicting beliefs within a counselor's initial endorsement of the importance of a facet or intervention. Additionally, themes beyond the scope of this research question emerged from the interviews.

Together, these quantitative and qualitative results suggest that overall, the counselors surveyed and interviewed in this study agreed that MTMDSS Universal Supports as described in the USIS items, are essential since COVID-19. Thus, it is reasonable to conclude from this data that these school counselors believe in the importance of these school counseling interventions. Probe-induced dimensions of skepticism, conflicting beliefs, and emergent themes beyond the scope of this study's research questions suggest additional depth and complexity to their beliefs that could be explored in future research.

Summary of RQ2: Implications

This study's second research question was: Can California high school counselors' Universal Supports-based beliefs be measured reliably, and is there validity evidence to trust the meaningfulness of the scores generated by the Universal Supports Importance Scale (USIS) instrument? The purpose of this research question was to ensure that the USIS instrument was designed using widely endorsed standards for thorough and rigorous validation and reliability testing that would support its future use. To that end, validity and reliability evidence were collected throughout the study. This study was able to collect three of the five types of validity evidence commonly accepted in validation work: content validity evidence, response process validity evidence, and internal structure validity evidence.

This study's content validity evidence was generated through construct mapping to ensure that the USIS would measure the study's intended construct: school counselor beliefs about the importance of MTMDSS Universal Supports since COVID-19. The construct maps developed by the researcher were grounded in extant literature on beliefs, MTSS and MTMDSS frameworks, and the ASCA National Model for School Counseling's standards and competencies. These maps were also reviewed iteratively by expert panels.

Response process validity evidence was collected from panel think aloud protocols conducted with three current California high school counseling practitioners in the field. The iterative feedback from all expert and practitioner panels led to revisions of the instrument to improve its alignment to the construct. Response process validity evidence was also collected through the USIS instrument's exit interview questions, which revealed that most respondents found the survey items to be clear and understandable.

Lastly, internal structure evidence was generated through the development of a partial credit model fit analysis using IRT methods. Evidence collected from these sources and using a Wright map showed that the USIS instrument captured a limited range of responses on the logit scale, suggesting that the revision of some items and/or the outcome space may be needed to better distinguish a full range of school counselor beliefs. Model fit analysis generated internal structure evidence, showing that all 21 of the items were aligned with the USIS model. DIF analyses performed in this study revealed that there is no gender and/or ethnicity bias in the instrument as currently designed, providing strong internal structure evidence for the quality of the overall items design for the instrument. IRT analysis delivered further internal structure evidence for the USIS instrument. IRT analysis data showed that all items, except for Q6, were well-functioning, stable, and consistent. This suggests relatively strong alignment in the construction of the USIS instrument.

This study was able to collect one of the four widely recognized types of reliability evidence, internal consistency. To achieve this, two internal consistency measures were generated: a Cronbach's alpha value ($r = .84$) and a person separation value ($r = .85$). Both reliability coefficient values provided evidence for the internal consistency and reliability of the USIS instrument. This evidence suggests that the USIS is a reliable indicator of high school counselor beliefs and supports the scale's limited use in future research.

Summary of RQ3: Implications

This study's third research question was: Which variables, if any, predict/explain California high school counselors' Universal Supports-based beliefs? This research question sought to investigate potential predictive relationships between the study's independent

demographic variables and the dependent variable, which was school counselor beliefs. Three separate linear regression analysis models were utilized in this study to address the third research question and explore the different possible interactions between predictor variables and the outcome variable. In total, seven explanatory demographic variables were used in differing combinations within the different linear regression models. All three analyses revealed no statistically significant relationships between the explanatory variables and school counselor beliefs. Collinearity diagnostics were also conducted and revealed no problems with multicollinearity on the multiple linear regression models.

The results of the regression analyses were surprising to the researcher. The researcher's original hypothesis was that school demographic variables, such as urbanicity of school community and student populations' socio-economic status, as well as school counselor demographics, such as years of service and professional organization membership, would play a predictive role in school counselor beliefs on the importance of MTMDSS Tier 1 interventions since COVID-19. This was based on an extensive review of the literature. Upon reviewing the survey data, as well as the semi-structured interview data, however, the researcher predicted that there was not enough variety in survey responses to show any differentiation in any of the demographic variables, as most school counselors across all demographic indicators agreed or strongly agreed that all interventions (as stated in all survey items across all four facets) were essential. This prediction bore out as the researcher ran varying combinations of regression analyses across the three models, finding only statistically insignificant differences between them. The urbanicity of school community came the closest (in all three models) to displaying a significant relationship to counselor

beliefs, but ultimately, did not reach $p \leq .05$. Thus, it is the researcher's conclusion that within this study's findings, none of the variables studied predicted or explained school counselors' Universal Supports-based beliefs.

Future examination of this research question utilizing the USIS may benefit from some alterations to the current study. Although this study's sample ($N=113$) was diverse and relatively representative of California's composition of high school counselors across demographic indicators, a larger sample could further improve representation (Ravid, 2020). It would also be interesting to see if a larger sampling of high school counselors completing the existing USIS survey would result in more variation within the response data and/or different regression analyses results. Another possibility for future study is to revise some USIS items and/or change the outcome space design to better capture a broader spectrum of school counselor beliefs from which to explore potential predictive relationships using this type of regression analysis.

Discussion

The COVID-19 pandemic spotlighted pre-existing inequities within educational systems in California, while social movements building in tandem with the pandemic created a swelling of demand for social justice and equity throughout societal institutions, including K-12 education. In the fall of 2022 as this study was being launched, California's legislature passed Assembly Bill 2508, with the governor signing it into law (and California Education Code) shortly thereafter. California Education Code (§49600, 1987/2022) "require[s] educational counseling to also include certain postsecondary services" and calls on public school counseling programs throughout California to "work within multi-tiered systems of

support that use multiple data sources to monitor and improve pupil behavior, attendance, engagement, and achievement.”

As the literature reviewed in this study has described, MTSS had been steadily gaining prominence in California leading up to the COVID-19 crisis. School counseling standards and competencies, guided by national and state professional organizations, have increasingly called for school counselors to align their roles with multi-tiered support frameworks since COVID-19. The codifying of AB 2508 elevated those recommendations to new levels of significance by formally embedding multi-tiered support frameworks within the role of the California school counselor.

This study’s findings suggest that school counselors believe in the importance of the interventions within the primary tier of the MTMDSS framework. Given the increased prevalence of multi-tiered supports as described above, high levels of school counselor beliefs on the importance of MTMDSS Universal Supports is not surprising. As multi-tiered support frameworks become increasingly recommended and mandated for school counselors, continuing to build upon this study’s research is necessary to inform the field of school counseling and the educational policy that guides it. This study’s recommendations are centered on the need for future research and are presented in the following section.

Recommendations for Future Research

This study proposes three recommendations for future research based on its findings. This study’s construct, as has been described previously and will be discussed further in the limitations section below, was, by design, narrowly focused on school counselor beliefs on

the importance of one piece of a complex framework. This focus was maintained through the construction of the USIS items and the semi-structured interview protocol.

While the semi-structured interview protocol aimed to triangulate survey responses and provide deeper understanding and context in connection to the study's first research question, the open-ended nature of the qualitative interviews also generated new and unforeseen emergent themes. Examples of these themes were included in Chapter Four's findings. Inductive thematic analysis of the interviews revealed two main overarching themes as well as subthemes, that although fell outside of the scope of addressing this study's research questions, underscored the complexities of working with MTMDSS in the landscape of COVID-19, and thus, present an imperative for deeper inquiry to better understand school counselor beliefs connected to the MTMDSS framework. These themes represent the study's first two recommendations for future research.

The USIS was the primary instrument utilized for collecting data in this explanatory sequential mixed methods study. In addressing this study's second research question, the USIS underwent a robust validation process and emerged as showing promise for future research. To ensure its optimum capability for measuring school counselor beliefs in future inquiry, the USIS could benefit from additional improvements, and thus, represents the third recommendation emerging from this study.

Ideals of Standards, Realities of Practice, and Conflicting Beliefs. Although the ASCA National Model for School Counseling provides standards to guide appropriate expectations for the profession, there is abundant literature documenting disconnection between school counselors' ideals of standards and their perceived realities of their day-to-

day challenges, duties, and expectations from their institutions (Blake, 2020; Hatch et al., 2015; Militello & Janson, 2014; Poynton & Carey, 2006; Pyne, 2011). The COVID-19 pandemic may further this disconnection, as some school counselors have reported recent shifts in expectations from their schools/districts that fall outside of the ASCA standards (ASCA, 2021a). Within California, while California Education Code now mandates school counselors to work within MTSS frameworks, emerging literature also suggests that even California educators who believe strongly in its importance, still struggle to prioritize it during/since COVID-19 (California MTSS et al., 2021). This literature is relevant to a main theme that emerged from this study's interviews.

All of this study's interview participants described examples of how they struggle to connect their professional ideals that the recommended MTMDSS Universal Supports are important, to the realities they perceive within their practices since COVID-19. These school counselors also expressed, at times, contradictory beliefs within their overall statements of endorsement for Universal Supports, further highlighting the disconnection. As one school counselor put it, "I think it's really important. But it's one thing to believe that something is important on its face, and it's another to make it happen once my school day begins." This theme of disconnection between ideals of standards, realities of practice, and conflicting beliefs, was present in the interview data across all four facets of practice.

Because the role of the school counselor is dynamic and multidimensional, school counselors may hold complex and/or contradictory beliefs that impact their practices (Shertzer & Stone, 1972). Festinger's (1957) theory of cognitive dissonance posits that when people hold dissonant beliefs or opposing cognitions, they seek to remove that dissonance by

aligning beliefs with associated behaviors or practices. Some extant literature exploring this theory within educational praxis suggests that when educators try to minimize the discomfort that conflicting beliefs cause (by attempting to align their practices with ideals) they may experience an internal tension that leads to counterproductivity or incongruence within their practice (Farrell & Bennis, 2013; Farrell & Lim, 2005; Guerra & Wubbena, 2017; Nelson & Guerra, 2014).

Although this study discusses an abundance of relevant theory and literature on the relationship between beliefs, behavior, and the implementation of educational programs, it does not attempt to measure it within its limited scope. It is the recommendation of this study that future research is needed to explore the complex, and at times, dissonant relationship between school counselors' ideals and beliefs about MTSS/MTMDSS, their perceived and experienced realities of practice since COVID-19, and their implementation of multi-tiered support frameworks.

Immediate Interventions for Practice. As discussed throughout this study, literature on the impacts of the COVID-19 pandemic on student needs is currently emerging and incomplete. Although not the focus of this study's research questions, analysis of the qualitative interview data revealed a second emergent theme related to student needs. All school counselors interviewed shared immediate intervention areas of focus needed in their practices to support the student needs that they have encountered since the arrival of COVID-19. Within this overarching theme, the most prominent and frequent subthemes that emerged from these conversations were (1) the need for students to establish/re-establish personal connections within their school community, (2) the need for prioritizing equity within school

counseling services, (3) the overwhelming need for student mental health and wellness/SEL support, and (4) the need to address gaps in student learning, motivation, and social-emotional skills upon returning from distance learning. The school counselors interviewed for this study described all of these needs as impactful on their practices as well as their beliefs about why the facets of Universal Supports are important since COVID-19.

It is the recommendation of this study that more research is needed exploring the immediate intervention needs for school counseling practices since COVID-19 and how these needs may impact school counselors' MTSS/MTMDSS beliefs and priorities. The MTMDSS framework was developed and introduced three years prior to the arrival of the COVID-19 pandemic. The core facets of interventions recommended by the MTMDSS model for Tier 1 Universal Supports were also established pre-COVID-19. Additional research on the needs for immediate interventions in school counselor practice, could help inform the school counseling profession in its ongoing evaluation and evolution of MTMDSS components and broader MTSS frameworks to most effectively and equitably address emerging student needs.

USIS Instrumentation and Validation: Next Steps. This study sought to validate the USIS for future use. As previously described, the USIS underwent robust validation and reliability protocols throughout this study. The USIS emerged from these protocols exhibiting (1) strong item alignment with the USIS model, (2) no significant differential item functioning across gender or race/ethnicity categories, (3) well-functioning and stable items, and (4) acceptable levels of reliability for future use. One concern, however, was that data collected in this study from the USIS was disproportionately positive. As the study's Wright

map showed, the USIS respondents were not covered across their entire range of beliefs by the item thresholds, particularly on the higher end of the school counselor belief logit scale. While semi-structured interviews from the qualitative phase of this study triangulated respondents' enthusiastic beliefs as indicated on the survey, additional probing revealed more layers within their endorsements, suggesting that counselors may have a more complex and nuanced range of beliefs than was captured by the current USIS items. To be more assured that we are capturing the full range of school counselor beliefs on the importance of MTMDSS (Tier 1) Universal Supports, the USIS may benefit from some enhancements. According to experts in item development, improving the survey instrument can benefit from several next steps.

First, we can design Guttman (1944) items to better differentiate beliefs and make the overall outcome scale more interpretable. Wilson (2005) notes that while Likert-style items/outcome spaces are common and popular for use in attitude surveys, they can result in an unsatisfying relationship between the response options and the construct being measured. Guttman item formats differ from Likert items in several important aspects. For example, Likert items utilize a set of standard response options (such as in the case of this study—*strongly agree, agree, neutral, disagree, strongly disagree*) with little to guide a respondent in judging the difference between these levels. This can be problematic for differentiation and interpretation because respondents can have vastly different ideas about the distinction between these levels of agreement (Wilson, 2005). In contrast, Guttman items “build into each option set meaningful statements that give the respondent some context in which to

make the desired distinctions” (Wilson, 2005, p. 79). This could be useful in drawing out variation within a highly agreeable sample, such as this study’s sample.

Second, we can redesign the outcome space from the initial 5-point scale to other configurations. For example, the current polytomous outcome space could be dichotomized as *agree* and *disagree* rendering new ways of eliciting responses. These simplified responses may be more useful, but there are caveats. Experts in Rasch modeling (Hagquist & Andrich, 2004, p. 218) note that:

Since discarding items sometimes may decrease the precision of measurement too much, an alternative strategy for post-hoc analyses might be to collapse the response categories in order to try to bring the items in accordance with the Rasch model (Andrich, 1996; Zhu et al., 1997). Collapsing response categories is an appropriate technique only if the data does not conform to the Rasch model (Andrich, 1996). In contrast, if the data fit the Rasch-model, collapsing response categories violates the model (Rasch, 1966).

Additionally, to help determine whether items could be retained with revised response categories, Hagquist and Andrich (2004) also recommend complimentary analysis such as qualitative interviews to better understand how individuals interpret and perceive the different categories, and whether such changes make individual items more or less difficult to endorse.

Third, we can examine the outcome space and explore alternative IRT measurement models to apply to the data. For example, whereas cumulative models, such as the partial credit model utilized in this study are the most frequently used in IRT analyses, so-called “unfolding models” could also be considered. In contrast to cumulative models, which postulate that higher levels of a latent trait predict higher item scores, unfolding models are proximity models that predict item scores based on the distances between a given

individual's latent trait levels and each item location (Andrich, 1988; Liu & Chalmers, 2018). Unfolding models have been found to be useful in studies of individual attitudes and preferences (Andrich, 1988; Yuan et al., 2022). Further, exploring a combined application of parametric and non-parametric unfolding models may also be a future consideration, as recent research suggests that a systematic combination of these two types of unfolding models offers a complimentary and promising approach in diagnosing model misfit, specifically in the measurement of attitudes (Yuan et al., 2023).

Study Limitations

The researcher acknowledges several limitations to this study. The most significant limitations are related to the limited size and scope of the study. Although this study was able to recruit a relatively representative sample of California high school counselors across school community, professional, and personal demographic indicators, it ultimately was only able to recruit a total of 113 high school counselors for its quantitative phase and 6 high school counselors for its qualitative phase. Given California's statewide school counselor population of 10,416 (California Department of Education [CDE], 2019), a larger sample size would be helpful in improving the generalizability of the findings. This study also only included the beliefs of school counselors working at the high school level; thus, its findings are limited in their generalizability to one level of school counseling. This study also had limited reach to school counselors within the state of California, creating generalizability limits to school counselors throughout the United States. Broader, more far-reaching research may be useful in connecting findings to the school counseling profession nationally. This study was cross-sectional and examined school counselor beliefs at one point in time within

the COVID-19 pandemic. Longitudinal research would be useful in examining how school counselor beliefs evolve with future developments of the pandemic or other events of significance.

This study was limited by its narrowly focused construct, further limiting generalizability. As previously described, this study sought to measure high school counselor beliefs on one tier (Tier 1) of a three-tiered, multi-domain framework. The three main school counseling domains—academic development, college and career development, and social-emotional development—are a prominent focal point and distinguishing characteristic of the MTMDSS framework. Although the USIS items and interview protocol incorporated examples of interventions that fall into each of the three main domains of school counseling, this study did not attempt to measure school counseling beliefs on these domains specifically. Thus, its findings are limited to beliefs on the broader facets measured within Tier 1. The limitations created by this study's narrow construct also present wide opportunities for future research to explore in the pursuit of more comprehensively understanding school counselor beliefs about the MTMDSS framework.

Lastly, this study was limited in its ability to capture a full range of school counselor beliefs across all response categories on the USIS instrument on the importance of Tier 1 Universal Support interventions. While the researcher has concluded that based on their responses, the participants in this study hold high levels of belief in the importance of Universal Supports, he acknowledges that the limited range of beliefs captured by the USIS may have also limited the study's ability to identify predictive relationships through its regression analyses as it sought to address the third research question. Improvements to the

internal structure of the items design and outcome space design may reduce some of these limitations in future research.

Conclusion

This study explored and measured California high school counselor beliefs on the importance of MTMDSS Universal Supports since COVID-19 because understanding these beliefs holds implications for behavior, and in the case of MTMDSS, this may have implications for effective implementation. The findings from this study allow for a preliminary view of the degree to which school counselors believe various facets of Universal Supports are essential within this current COVID-19 era in education. These findings also informed three recommendations advanced by this study. First, further research is needed to better understand the relationship between school counselors' ideals, beliefs, realities of practice, and implementation of MTSS/MTMDSS. Second, more research is needed to better understand immediate needs for interventions of practice, including their impact on school counselors' MTSS/MTMDSS beliefs and priorities since COVID-19. Third, the USIS instrument can and should be enhanced for future use in measuring school counselor beliefs.

This study is important because it initiates a conversation within research and educational communities around the importance of exploring and measuring the beliefs of the school counseling professionals who are directly responsible for delivering multi-tiered school counseling support interventions to students. Further, this study offers a starting point for subsequent research seeking to understand school counselor beliefs across varying grade levels, states beyond California, as well as across other tiers and domains within the

MTMDSS model. Such understanding is a critical component to gain insight into the probability of effective implementation of MTMDSS by school counselors. This study also produced a measurement instrument that fared well in robust validation and reliability protocols. The USIS shows promise for future utilization in efficacious measurement of school counselor beliefs related to MTMDSS.

What was learned from this research is that the school counselors in this study from across the state of California believe in the importance of MTMDSS (Tier 1) Universal Supports since COVID-19. This study also revealed that these school counseling practitioners have a vast and rich trove of firsthand insight into the most immediate student needs since COVID-19, reaffirming the value of considering school counselor beliefs in the ongoing evolution of the field. Although the study's survey instrument was unable to identify variables that significantly predict these school counselors' beliefs, we were able to learn from the data collected that there are additional dimensions of these beliefs to uncover across a range of yet to be explored tiers, domains, and facets within the MTMDSS model. Future deployment of the USIS with modification could help facilitate a more complete understanding of school counselor beliefs on MTMDSS. Ultimately, continued exploration of school counselor beliefs and multi-tiered support frameworks in future research carries the potential to help inform the school counseling profession in its ongoing development of standards and competencies, essential best practices, and effective interventions that equitably support all students in the COVID-19 era and beyond.

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Appendix A

Recruitment Emails and Flyer

Initial email (8/29/22)

Subject line:

Important Study on CA High School Counselors and Multi-Tiered Support Interventions

Dear Fellow School Counselor,

My name is Ryan Carter, and I am a graduate student in Educational Leadership at San Jose State University, as well as a professional school counselor with 20 years of experience in the field. This year, I am beginning my doctoral research on multi-tiered, school counseling support interventions.

The purpose of this email is to invite you to participate in my study which aims to explore the beliefs of school counselors about the importance of multi-tiered support interventions since the onset of the COVID-19 pandemic. The title of this study is: *MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE IMPORTANCE OF MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19*.

By participating, you will help me better understand high school counselor beliefs about the importance of multi-tiered school counseling interventions since the arrival of the COVID-19 pandemic.

You do not need to be highly knowledgeable of multi-tiered support frameworks to participate in this study. You just need to be a practicing high school counselor, employed by a public high school in California to participate.

In a few days, you will be receiving an email with a link to the survey sent through the Qualtrics survey platform on my behalf. The survey link can be accessed and used from any device at any time during September 2022. The survey link is anonymous, and your name or email will not be collected, unless you indicate that you are willing to be contacted for a follow-up interview.

As a school counselor myself, I know that you are incredibly busy. Your perspective is important to better understand school counselor beliefs on multi-tiered supports since COVID-19. I look forward to hearing from you and capturing your voice in this study.

Thank you for considering this request. If you have any questions, please email me.

Ryan Carter
Education Doctoral Candidate
San Jose State University

First survey link email (8/31/22)

Subject line: Take the CA High School Counselor Survey on Multi-Tiered Supports

Dear Fellow School Counselor,

I am writing to follow up on my previous email inviting you to participate in my research on school counseling multi-tiered support interventions. As a high school counselor in California, your perspective is important to understanding counselor beliefs on these interventions since COVID-19.

This survey should take approximately 15 minutes to complete, and you can access it online here {LINK TO SURVEY}. The survey will be open for the month of September, and I will be sending reminders periodically throughout the data collection process to include as many high school counselors as possible.

If you have any questions about this study (*MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE IMPORTANCE OF MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19*), please email ryan.carter@sjsu.edu. Thank you for your time and consideration.

Sincerely,
Ryan Carter
Education Doctoral Candidate
San Jose State University

First follow-up email (9/7/22)

Subject line: REMINDER: CA High School Counselor Survey on Multi-Tiered Supports

Dear Fellow School Counselor,

Last week I invited you to participate in my study on school counseling multi-tiered support interventions, and I wanted to be certain that you received my message. As a high school counselor in California, your perspective is important to understanding counselor beliefs on these interventions since COVID-19.

This survey should take approximately 15 minutes to complete, and you can access it online here {LINK TO SURVEY}. The survey will be open for the month of August, and I will be sending reminders periodically throughout the data collection process to include as many high school counselors as possible.

If you have any questions about this study (*MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE IMPORTANCE OF MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19*), please email ryan.carter@sjsu.edu. Thank you for your time and consideration.

Sincerely,
Ryan Carter
Education Doctoral Candidate
San Jose State University

Second follow-up email (9/14/22)

Subject line: Your Voice is Needed! CA High School Counselor Survey on Multi-Tiered Supports

Dear Fellow School Counselor,

Earlier this month, I invited you to participate in a survey {LINK TO SURVEY} of California high school counselors designed to capture your beliefs related to school counseling multi-tiered support interventions since the arrival of the COVID-19 pandemic. The responses that have already been submitted are excellent contributions to this research that will further support meaningful dialogue. However, your perspective is still needed.

As a practicing school counselor, I understand how busy your schedule is. Your perspective is essential to this study (*MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE IMPORTANCE OF MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19*). Please add your voice by completing the survey today.

With appreciation,
Ryan Carter
Education Doctoral Candidate
San Jose State University

Final follow-up email (9/21/22)

Subject line: Last Chance to Add Your Voice! CA High School Counselor Survey on Multi-Tiered Supports

Dear Fellow School Counselor,

I know you are very busy with the start of the new school year, but the survey on school counseling multi-tiered support interventions will be closing soon. I encourage you to add your voice today.

I urge you to participate because your perspective will help me gain an accurate picture of school counselor beliefs about the importance of school counseling multi-tiered support interventions since the COVID-19 pandemic. The findings from this study have the potential to contribute significantly to the school counseling profession.

Please take 15 minutes to share your perspectives here – {LINK TO SURVEY}. The survey will close at midnight on September 30, 2022.

If you have any questions about this study (*MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE IMPORTANCE OF MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19*), please email me.

Sincerely,
Ryan Carter
Education Doctoral Candidate
San Jose State University

Interview request email

Subject line: Interview Request – Important Study on School Counseling Multi-Tiered Supports

Dear {Name},

My name is Ryan Carter, and I am a graduate student in Educational Leadership at San Jose State University. This year, I began my research on school counseling multi-tiered support interventions. You participated in the first phase of my study (*MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE IMPORTANCE OF MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19*) by completing my survey for high school counselors throughout California. In the survey, you indicated that you would be willing to participate in a follow-up interview, which I very much appreciate, and this is the reason for my email today.

I would like to invite you to participate in a 30-minute interview. The purpose of this interview is to explore some of the findings from the survey and to allow participants to further expand on beliefs about school counseling multi-tiered support interventions. Your additional insight is important to this study.

To schedule an interview, please respond to this email and indicate days or times that are best for your schedule. The interviews will take place virtually over Zoom. If you have any questions about this study, please email ryan.carter@sjsu.edu.

Thanks very much,

Ryan Carter
Education Doctoral Candidate
San Jose State University

Follow-up interview request email

Subject line: Interview Request – Important Study on School Counseling Multi-Tiered Supports

Dear {Name},

As I mentioned in my previous email, I would like to invite you to participate in a 30-minute follow-up interview to the survey on school counseling multi-tiered support interventions from earlier this fall. Your additional insight is important to this study (*MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE IMPORTANCE OF MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19*). I know you are incredibly busy, and I would be grateful for any time that you might be able to offer. Please reply to this email if you are available for a virtual interview over Zoom.

Sincerely,
Ryan Carter
Education Doctoral Candidate
San Jose State University

Study Recruitment Flyer



Seeking California High School Counselors

New Study

Importance of multi-tiered supports in high school counseling since COVID-19

YOUR VOICE IS ESSENTIAL!

PURPOSE OF THE STUDY

This study seeks to measure California High School Counselor beliefs on the importance of multi-tiered support interventions in school counseling since the arrival of the COVID-19 pandemic. Knowledge of multi-tiered system of supports (MTSS/MTMDSS) is not necessary.

- ✓ Who can participate?
 - California High School Counselors
- ✓ What does participation involve?
 - Brief 10-15 minute survey
 - Optional 30-minute interview, conducted virtually over Zoom
- ✓ Are you interested?
 - To participate, click [HERE](#) or scan the QR code below

RESEARCHERS

RYAN J. CARTER - Student Researcher
Education Doctoral Candidate, San José State University

BRENT DUCKOR, Ph.D. - Faculty Advisor
*Department of Teacher Education, Lurie College of Education,
San José State University*

Questions? Contact: Ryan Carter at ryan.carter@sjsu.edu
IRB#:22168



Scan to take the survey

Appendix B

Construct Map

Construct Map—High School Counselor Beliefs on the Importance of MTMDSS (Tier 1) Universal Supports* Since COVID-19

**Universal Supports = (1) Core Curriculum, (2) Individual Learning Plans, (3) Schoolwide Events, (4) Parent Education Events (4 facets)*

HIGH

Respondents	Responses to items that represent counselor beliefs
<p>School counselors who <u>strongly believe</u> all manner and type of “Universal Supports” are essential. These counselors have a strong belief in the need for all facets of practice. These include practices drawn from: (1) Core Curriculum, (2) Individual Learning Plans, (3) Schoolwide events, (4) Parent Education Events. These counselors may also strongly believe that these practices are efficacious and needed particularly during/since the COVID-19 pandemic. They prioritize all 4 facets of practices and see them equally important/or as a priority for their school sites.</p>	<ol style="list-style-type: none"> 1. Academic study skills curriculum, delivered to all students, is essential since COVID. 2. College admissions/A-G requirements curriculum, delivered to all students, is essential since COVID. 3. Managing stress and anxiety curriculum, delivered to all students, is essential since COVID. 4. Academic support resources curriculum, delivered to all students, is essential since COVID. 5. 21st Century Skill-building curriculum, delivered to all students, is essential since COVID. 6. College and career research curriculum, delivered to all students is essential since COVID. 7. Individualized 4-year academic planning for all students is essential since COVID. 8. Individualized postsecondary planning for all students is essential since COVID. 9. Individualized course sequence planning for all students is essential since COVID. 10. Individualized goal setting for each

	<p>year of high school is essential since COVID.</p> <ol style="list-style-type: none"> 11. Individualized strengths/areas for growth identification is essential since COVID. 12. Schoolwide transition to high school/orientation events are essential since COVID. 13. Schoolwide college fairs are essential since COVID. 14. Schoolwide mental health awareness events are essential since COVID. 15. Schoolwide course selection events are essential since COVID. 16. Schoolwide alternative postsecondary pathways events are essential since COVID. 17. Schoolwide diversity appreciation events are essential since COVID. 18. Parent education events focused on school wide academic support resources are essential since COVID. 19. Parent education events focused on postsecondary pathways are essential since COVID. 20. Parent education events focused on schoolwide community mental health support resources are essential since COVID. 21. Parent education events focused on college planning are essential since COVID. 22. Parent education events focused on school wide mental health initiatives and trends are essential since COVID.
<p>School counselors who <u>mostly believe</u> all manner and type of “Universal Supports” are essential. These counselors have a moderate belief in the need for some, but not all facets of practice. These include practices drawn from: (1) Core Curriculum, (2) Individual Learning Plans, (3) Schoolwide events, (4) Parent Education Events. These counselors may have reservations about</p>	<ol style="list-style-type: none"> 1. Academic study skills curriculum, delivered to all students, is essential since COVID. 2. College admissions/A-G requirements curriculum, delivered to all students, is essential since COVID. 3. Managing stress and anxiety curriculum, delivered to all students, is essential since COVID.

<p>particular facets and question whether these practices are efficacious and needed particularly <i>during/since the COVID-19 pandemic</i>. These school counselors prioritize many (at least 2-3) facets of practice, but they may not seem as equally important/or as a priority for their school sites.</p>	<ol style="list-style-type: none"> 4. Academic support resources curriculum, delivered to all students, is essential since COVID. 5. 21st Century Skill-building curriculum, delivered to all students, is essential since COVID. 6. College and career research curriculum, delivered to all students is essential since COVID. 7. Individualized 4-year academic planning for all students is essential since COVID. 8. Individualized postsecondary planning for all students is essential since COVID. 9. Individualized course sequence planning for all students is essential since COVID. 10. Individualized goal setting for each year of high school is essential since COVID. 11. Individualized strengths/areas for growth identification is essential since COVID. 12. Schoolwide transition to high school/orientation events are essential since COVID. 13. Schoolwide college fairs are essential since COVID. 14. Schoolwide mental health awareness events are essential since COVID. 15. Schoolwide course selection events are essential since COVID. 16. Schoolwide alternative postsecondary pathways events are essential since COVID. 17. Schoolwide diversity appreciation events are essential since COVID. 18. Parent education events focused on school wide academic support resources are not essential since COVID. 19. Parent education events focused on postsecondary pathways are not
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	<p>essential since COVID.</p> <p>20. Parent education events focused on schoolwide, and community mental health support resources are not essential since COVID.</p> <p>21. Parent education events focused on college planning are not essential since COVID.</p> <p>22. Parent education events focused on school wide mental health initiatives and trends are not essential since COVID.</p>
<p>School counselors who <u>mostly disbelieve</u> all manner and type of “Universal Supports” are essential. These counselors may have a belief in the need for 1-2 of the 4 facets of practice. These may include practices drawn from: (1) Core Curriculum, (2) Individual Learning Plans, (3) Schoolwide events, (4) Parent Education Events. These counselors may have serious doubts/reservations about particular practices, and they tend to question whether these practices are efficacious and/or needed, particularly <i>during/since the COVID-19 pandemic</i>. These school counselors tend to prioritize 1-2 facets of practices. But they may not seem as equally important/or as a priority for their school sites.</p>	<ol style="list-style-type: none"> 1. Academic study skills curriculum, delivered to all students, is not essential since COVID. 2. College admissions/A-G requirements curriculum, delivered to all students, is not essential since COVID. 3. Managing stress and anxiety curriculum, delivered to all students, is not essential since COVID. 4. Academic support resources curriculum, delivered to all students, is not essential since COVID. 5. 21st Century Skill-building curriculum, delivered to all students, is not essential since COVID. 6. College and career research curriculum, delivered to all students is not essential since COVID. 7. Individualized 4-year academic planning for all students is not essential since COVID. 8. Individualized postsecondary planning for all students is not essential since COVID. 9. Individualized course sequence planning for all students is not essential since COVID. 10. Individualized goal setting for each year of high school is not essential since COVID. 11. Individualized strengths/areas for

	<p>growth identification is not essential since COVID.</p> <ol style="list-style-type: none"> 12. Schoolwide transition to high school/orientation events are not essential since COVID. 13. Schoolwide college fairs are not essential since COVID. 14. Schoolwide mental health awareness events are not essential since COVID. 15. Schoolwide course selection events are not essential since COVID. 16. Schoolwide alternative postsecondary pathways events are not essential since COVID. 17. Schoolwide diversity appreciation events are not essential since COVID. 18. Parent education events focused on school wide academic support resources are essential since COVID. 19. Parent education events focused on postsecondary pathways are essential since COVID. 20. Parent education events focused on schoolwide community mental health support resources are essential since COVID. 21. Parent education events focused on college planning are essential since COVID. 22. Parent education events focused on school wide mental health initiatives and trends are essential since COVID.
<p>School counselors who <u>disbelieve all manner and type of “Universal Supports” are essential. These include practices drawn from:</u> (1) <i>Core Curriculum</i>, (2) <i>Individual Learning Plans</i>, (3) <i>Schoolwide events</i>, (4) <i>Parent Education Events</i>. These counselors have serious doubts/reservations about all 4 facets, and they tend to question whether these practices are efficacious and/or needed, particularly <i>during/since the COVID-19 pandemic</i>.</p>	<ol style="list-style-type: none"> 1. Academic study skills curriculum, delivered to all students, is not essential since COVID. 2. College admissions/A-G requirements curriculum, delivered to all students, is not essential since COVID. 3. Managing stress and anxiety curriculum, delivered to all students, is not essential since COVID. 4. Academic support resources curriculum, delivered to all students,

	<p>is not essential since COVID.</p> <ol style="list-style-type: none"> 5. 21st Century Skill-building curriculum, delivered to all students, is not essential since COVID. 6. College and career research curriculum, delivered to all students is not essential since COVID. 7. Individualized 4-year academic planning for all students is not essential since COVID. 8. Individualized postsecondary planning for all students is not essential since COVID. 9. Individualized course sequence planning for all students is not essential since COVID. 10. Individualized goal setting for each year of high school is not essential since COVID. 11. Individualized strengths/areas for growth identification is not essential since COVID. 12. Schoolwide transition to high school/orientation events are not essential since COVID. 13. Schoolwide college fairs are not essential since COVID. 14. Schoolwide mental health awareness events are not essential since COVID. 15. Schoolwide course selection events are not essential since COVID. 16. Schoolwide alternative postsecondary pathways events are not essential since COVID. 17. Schoolwide diversity appreciation events are not essential since COVID. 18. Parent education events focused on school wide academic support resources are not essential since COVID. 19. Parent education events focused on postsecondary pathways are not essential since COVID. 20. Parent education events focused on
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	<p>schoolwide community mental health support resources are not essential since COVID.</p> <p>21. Parent education events focused on college planning are not essential since COVID.</p> <p>22. Parent education events focused on school wide mental health initiatives and trends are not essential since COVID.</p>
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LOW

Appendix C

USIS Survey Instrument

AGREEMENT TO PARTICIPATE IN THE ONLINE SURVEY

Your completion of the online survey indicates your willingness to voluntarily participate. View and download the consent notice [here](#) (hyperlink).

I have read the consent notice and I agree to participate in the online survey.

- Yes
 No [prevent from proceeding]

Pre-O1

This study plans to conduct follow-up interviews with some survey participants. Would you be interested in participating in a brief, 30-minute follow-up interview over Zoom at a later date? You will also have another opportunity to answer this question at the end of the survey.

- Yes
 Maybe. I'll decide at the end of the survey.
 No

Part One: High school counselor beliefs about the importance of (Tier 1) Universal Supports

Facet: Core Curriculum

1. A districtwide high school counseling curriculum focused on building academic skills delivered to all students is essential since COVID-19.
2. A districtwide high school counseling curriculum focused on graduation requirements delivered to all students is essential since COVID-19.
3. A districtwide high school counseling curriculum focused on exploring college and career possibilities delivered to all students is essential since COVID-19.
4. A districtwide high school counseling curriculum focused on college admissions preparation delivered to all students is essential since COVID-19.
5. A districtwide high school counseling curriculum focused on building social skills delivered to all students is essential since COVID-19.
6. A districtwide high school counseling curriculum focused on mental health and well-being delivered to all students is essential since COVID-19.

Facet: Individualized Planning

7. Individualized 4-year academic planning for all students is essential since COVID-19.
8. Individualized course selection planning for all students is essential since COVID-19.
9. Individualized postsecondary planning for all students is essential since COVID-19.

10. Individualized academic strengths and interests identification is essential since COVID-19.
11. Individualized goal setting for all students is essential since COVID-19.

Facet: Schoolwide Events

12. District/schoolwide transition-to-high school events are essential since COVID-19.
13. District/schoolwide postsecondary pathways events are essential since COVID-19.
14. District/schoolwide college fairs are essential since COVID-19.
15. District/schoolwide mental health awareness events are essential since COVID-19.
16. District/schoolwide cultural diversity education events are essential since COVID-19.

Facet: Parent Education Events

17. District/schoolwide parent education events focused on academic support resources are essential since COVID-19.
18. District/schoolwide parent education events focused on postsecondary pathways are essential since COVID-19.
19. District/schoolwide parent education events focused on college planning are essential since COVID-19.
20. District/schoolwide parent education events focused on social-emotional development are essential since COVID-19.
21. District/schoolwide parent education events focused on mental health support resources are essential since COVID-19.

(Part One Outcome Space: Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree)

Part Two: Demographics by Respondent

22. Have you ever been employed as a high school counselor in California?
 - a. Yes
 - b. No

23. Are you currently employed as a high school counselor in California?
 - a. Yes
 - b. No

24. Describe your school district/county.
 - a. Rural
 - b. Suburban
 - c. Urban
 - d. Other (please specify) [text box]

25. Describe your high school.

- a. Comprehensive public high school
 - b. Charter high school
 - c. Continuation or alternative public high school
 - d. Private high school
 - e. Other (please specify) [text box]
26. How many students are enrolled in your high school?
- a. 300 or fewer
 - b. 301-600
 - c. 601-1,000
 - d. 1,001-2000
 - e. 2,001 or more
27. Estimate the percentage (%) of your school's student population who are English Learners (EL).
- a. 10% or less
 - b. 11% - 25%
 - c. 26% - 50%
 - d. 51% - 75%
 - e. More than 75%
28. Estimate the percentage (%) of your school's student population who qualify for free and reduced lunch.
- a. 10% or less
 - b. 11% - 25%
 - c. 26% - 50%
 - d. 51% - 75%
 - e. More than 75%
29. Estimate the percentage (%) of your school's student population who are in foster care.
- a. Less than 1%
 - b. 1% - 5%
 - c. 6% - 10%
 - d. 11% - 25%
 - e. More than 25%
30. Estimate the percentage (%) of your school's student population who are experiencing homelessness.
- a. 10% or less
 - b. 11% - 25%
 - c. 26% - 50%
 - d. 51% - 75%
 - e. More than 75%

31. What is the student-to-school counselor ratio in your high school?
- 250-to-1 or lower
 - 251-to-1 – 609-to-1
 - 610-to-1 or higher
32. How many years have you worked as a school counselor?
- Less than 1 year
 - 1-4 years
 - 5-9 years
 - 10-19 years
 - 20 years or more
33. What is the highest degree you have earned?
- Bachelor's degree
 - Master's degree
 - Ed.D. or Ph.D.
 - Other (Please specify) [text box]
34. Was your graduate level school counselor education program CACREP (Council for Accreditation of Counseling and Related Educational Programs) accredited?
- Yes
 - No
 - I don't know
35. Are you currently a member of the American School Counselor Association (ASCA)?
- Yes
 - No
36. Are you currently a member of the California Association of School Counselors (CASC)?
- Yes
 - No
37. What is your gender?
- Female
 - Male
 - Non-binary
 - Prefer to self-describe [text box]
 - Prefer not to state
38. What is your race/ethnicity?
- American Indian/Alaska Native
 - Asian
 - Black/African American

- d. Hispanic or Latino/a/x
- e. Native Hawaiian or Pacific Islander
- f. White
- g. Prefer to self-describe [text box]
- h. Prefer not to state

39. What is your age?
- a. Younger than 30
 - b. 30-39
 - c. 40-49
 - d. 50-59
 - e. 60-69
 - f. 70 or older
 - g. Prefer not to state

Part Three: Exit Questions

40. Were there any questions on this survey that were unclear?
- a. Yes (Please identify the specific question[s] and explain) [text box]
 - b. No

41. Did you have enough time to complete all the questions?
- a. Yes
 - b. No

42. What type of device did you use to complete this survey?
- a. Smartphone
 - b. Tablet
 - c. Laptop
 - d. Desktop
 - e. Other [text box]

43. Do you have any suggestions for improving the survey?
- a. Yes (please explain) [text box]
 - b. No

44. Would you be willing to further discuss these survey topics in a follow-up interview?

(Interviews will be conducted virtually through Zoom and last no longer than 30 minutes)

- a. Yes
- b. No

45. If you would be willing to participate in the interview, please list your preferred contact email here. Your email address will not be shared. [text box]

Thank you for your participation!

Appendix D

Panel Think Aloud Evidence

Panel Think Aloud: USIS, Part 1

Item	Clarity of Item	Interpretations/Comments	Suggestions
Q1	Could be clearer	I'm thinking our curriculum, but could also be canned curriculum you buy?-- (#2)....either way its important IMO-- (#3)---But not super clear if school curriculum, subject curriculum, counseling curriculum, etc.? "study" skills too limiting in my mind-- academic skills is more representative and comprehensive--(#1)	More specificity: "school counseling curriculum"?- (#1), make it read "academic skills", and maybe add "building" like other skills questions--(#3)
Q2	Clear	Interpret it to mean curriculum that we could be doing in classroom guidance, so reaches everyone, right?	
Q3	Clear	The essential since COVID, repetitive but reminds me to consider it, which is good. (#3)	
Q4	Clear	Yeah, repetition of essential is making me consider that every time too	
Q5	Clear	Communication, collaboration, etc. (#3)	
Q6	Could be clearer	"Research" isn't the best--do you mean like researching colleges?--I think research might seem too clinical, what about exploration?	Replace "research" with "exploration"--(#2); Yeah that's a better way of describing what we would be delivering--less confusing.-- (#1)
Q7	Clear		
Q8	Clear		
Q9	Clear	These (Q7-Q11) are all kind of asking same thing--all seems to be about 4-	

		year plan stuff (#2); Yes, this is how I am interpreting all individualized planning questions too (#1); yeah, clearly 4-year plan (#3)	
Q10	Clear		
Q11	Clear		
Q12	Clear		
Q13	Clear		
Q14	Clear	No-brainer-IMO (#1)	
Q15	Clear		
Q16	Could be clearer	I think I know what you mean by alternative, because we are discussing her in our district, but it's kinda vague, no?--(#3)	Could you parentheses in a few examples like Community College, vocational, gap years, etc.?(#3) ---I was kind of 2nd guessing that too--could be more concrete--OR actually, maybe take out ALTERNATIVE and just have it be postsecondary pathways (#2)---that's more encompassing, more Tier 1, right?--(#1)
Q17	Could be clearer, more encompassing	Appreciation--I get it, but a little trite? (#3) Aren't we more educating in these (#1)--and I would also say cultural (#2)	"Cultural diversity education events"----Okay, I get it, yeah, like education or training, not just let's appreciate, but deeper. (#3) Cultural is a good add. (#1); Agree (#2)
Q18	Clear		
Q19	Clear		
Q20	Clear		

Q21	Clear	Parent education events will be interesting; bet most people will say yes, but so much less important to us in our district (#2); Parent education events is clear and understandable (#1); Agree (#2)	
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Note: #1, #2, #3 = Panel Members

Appendix E

Semi-Structured Interview Protocol

Introduction & Consent to Record Interview

As you already know, I am Ryan Carter, and I am a graduate student in Educational Leadership at San Jose State. I'm also a practicing high school counselor. My research is exploring high school counselor beliefs about Multi-Tiered System of Supports, more commonly referred to as MTSS.

I really appreciate you making time during what I know is a busy time of year to help me continue to explore this topic. Before we begin, I wanted to mention that I would like to record this interview so I can devote my full attention to our conversation. Some of your responses may be included in my dissertation or future publications, but no identifying characteristics will be included in any published document. Were you able to review the informed consent notice document that I emailed? Do you have any questions?

This recording will only be seen/heard by me, and will be deleted after transcription, but I just wanted to check with you—Would you like to change your Zoom Participant name and/or Profile photo before I start recording? Okay, so I am going to begin recording now. Before we begin, may I have your verbal consent to participate in this recorded interview today?
Thank you. So, I would like to begin with just two questions about you.

Demographics

How many years have you been a high school counselor in California?
How many years have you been in your current position?

Thank you. Now, I'm going to be asking you some questions about four types of school counseling supports that you were asked about in the survey. These were: school counseling curriculum, individualized planning, schoolwide events, and parent education events.

Core Curriculum

Context: In the survey, I asked several questions about the importance of various components of a high school counseling curriculum, such as classroom lessons focused on academic development, social emotional development, and college and career readiness, delivered to all students.

Q: As a high school counselor, how important is having a planned school counseling curriculum that reaches **all students** since COVID-19?

Possible Probes:

- Can you explain?
- Can you say more?
- Can you give me some examples?
- Is there anything you can think of specific to your school or student community that makes parent education events important or unimportant?
- Has your perspective on this changed since COVID? (If yes) How so?

Individualized Planning

Context: In the survey, I asked several questions about the importance of Individualized Planning, often referred to as ILPs or 4-year plans, delivered to all students.

Q: Can you describe how important you think individualized planning or 4-year planning for **all students** is in high school counseling programs since COVID-19?

Possible Probes:

- Can you explain?
- Can you say more?
- Can you give me some examples?
- Is there anything you can think of specific to your school or student community that makes parent education events important or unimportant?
- Has your perspective on this changed since COVID? (If yes) How so?

Schoolwide Events

Context: In the survey, I asked several questions about the importance of schoolwide events in school counseling programs, that all students attend, such as wellness events, cultural diversity education events, college events like financial aid or college fair events, etc.

Q: How important do you think schoolwide events that **every** student attends, and that involve school counseling-related topics, are since COVID-19?

Possible Probes:

- Can you explain?
- Can you say more?
- Can you give me some examples?
- Is there anything you can think of specific to your school or student community that makes parent education events important or unimportant?
- Has your perspective on this changed since COVID? (If yes) How so?

Parent Education Events

Context: In the survey, I asked several questions about the importance of parent education events.

Q: Can you describe your views on how important you think parent education events are in school counseling programs since COVID-19?

Possible Probes:

- Can you explain?
- Can you say more?
- Can you give me some examples?
- Is there anything you can think of specific to your school or student community that makes parent education events important or unimportant?
- Has your perspective on this changed since COVID? (If yes) How so?

Closing

First, thank you so much for your time and insight today. This has been very helpful, and I know it will be an important contribution to my research. Before we end today, I wanted to ask: Is there anything else that you would like to share with me about your perspective or experiences related to these types of school counseling supports in general or since the arrival of the COVID-19 pandemic?

Thank you again. If for some reason, I need to clarify any of your responses today, would it be okay to reach out to you by email?

Thank you very much for your time and for your help with this study.

Appendix F

IRB Approval



Office of Research
Division of
Research and Innovation

San José State University
One Washington Square
San José, CA 95192-0022

TEL: 408-924-2272
officeofresearch@sjsu.edu
sjsu.edu/research

SAN JOSE STATE UNIVERSITY HUMAN SUBJECTS INSTITUTIONAL REVIEW BOARD

IRB Notice of Approval

Date of Approval: 7/12/2022

Study Title: Measuring High School Counselor Beliefs on the Importance of MTMDSS Universal Supports Since COVID-19

Principal Investigator (PI): Dr. Brent Duckor

Other SJSU Team Members:

SJSU Student(s): Ryan Carter

Funding Source: None

IRB Protocol Tracking Number: 22168

Type of Review:

- Exempt Registration: Category of approval §46.104(d)(2ii)
- Expedited Review: Category of approval §46.110(a){}
- Full Review
- Modifications
- Continuing Review

Special Conditions :

- Waiver of signed consent approved
- Waiver of some or all elements of informed consent approved
- Risk determination for device:
- Other:

Continuing Review:

- Is not required. Principal Investigator must file a [status report](#) with the IRB one year from the approval date on this notice to communicate whether the research activity is ongoing. Failure to file a status report will result in closure of the protocol and destruction of the protocol file after three years.

Is required. An annual [continuing review renewal application](#) must be submitted to IRB one year from the approval date on this notice. No human subjects research can occur after this date without continuing review and approval.

IRB Contact Information:

Alena Filip
Human Protections Analyst
Office of Research
Alena.Filip@sjsu.edu
408-924-2479

IRB document submission address: irb@sjsu.edu

IRB Chair:

Dr. Areum K. Jensen
Department of Kinesiology

Institutional Official:

Dr. Richard MocarSKI
Associate Vice President for Research

Primary Investigator Responsibilities:

- Any significant changes to the research must be submitted for review and approval prior to the implementation of the changes. The modification request form is posted on our [website](#).
- Reports of unanticipated problems, injuries, or adverse events involving risks to participants must be submitted to the IRB within seven calendar days of the primary investigator's knowledge of the event. The incident report form is posted on our [website](#).
- If the continuing review section of this notice indicates that continuing review is required, a request for continuing review must be submitted prior to the date the provided.
- Comply with an SJSU IRB or Institutional Official (IO) decision to suspend or withdraw approval for the study.

Approval Limitations:

- Although your study has been approved by the IRB, both the IRB and the Institutional Official (IO) for SJSU has the right to audit any approved study and withdraw approval.
- This approval is no longer valid once the SJSU PI is no longer affiliated with SJSU, unless the study is re-assigned to an SJSU-affiliated PI via a modification request.
- SJSU investigators may list external personnel in their applications. However, the SJSU IRB does not assume responsibility for the compliance of external personnel. Instead, external personnel should contact their IRB, either to coordinate a reliance agreement with the SJSU IRB as the IRB of record or to have their IRB conduct a separate review for their activities. External personnel who do not have the support of an external IRB and have not established a contract with SJSU should not receive access to individually identifying information about subjects. SJSU investigators are encouraged to be judicious about who they add as part of the study personnel, as responsibility for compliance rests with the SJSU PI in the event that external personnel do not have the support of an outside IRB.

Appendix G

Survey Consent Notice

SURVEY CONSENT NOTICE

MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE IMPORTANCE OF MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19

RESEARCHERS

Ryan Carter, Educational Leadership Doctoral Student, San José State University &
Brent Duckor, Ph.D., Faculty Advisor, San José State University

PURPOSE

The purpose of this study is to examine and measure California high school counselor beliefs on the importance of Multi-Tiered Multi-Domain Systems of Support (MTMDSS) Universal Supports since the onset of the COVID-19 pandemic.

PROCEDURES

Pre-selected California high school counselors are invited to participate and will be emailed a link to an online survey that will ask you to respond to questions about your beliefs about multi-tiered, school counseling support interventions. This survey should take between 10-15 minutes to complete. Participants who indicate on the survey that they are willing to participate in a follow-up interview may be contacted following completion of the survey.

COMPENSATION

No compensation will be given for participating in this study.

CONFIDENTIALITY

Survey responses will be kept confidential. No directly identifiable information will be collected during the survey, unless you choose to share your email address for the purpose of indicating your willingness to participate in a follow-up interview (in which case, you may be contacted by email). No potentially identifying information will be accessed or reported in the final study. Where data are reported, they will be reported in aggregate with no identifiable information included. Only the researchers listed above will have access to the data collected from this study.

YOUR RIGHTS

Your participation in the study is completely voluntary. You can refuse to participate in the entire study or any part of the study without any negative effect on your relations with San Jose State University. You also have the right to skip any question you do not wish to answer.

CONTACT INFORMATION

For further information about the study, please contact Ryan Carter (ryan.carter@sjsu.edu or 415-235-8322) or Dr. Brent Duckor, (brent.duckor@sjsu.edu or 510-375-1910).

AGREEMENT TO PARTICIPATE IN THE ONLINE SURVEY

Your completion of the study indicates your willingness to participate. Please keep this document for your records.

Appendix H

Interview Consent Notice

INTERVIEW CONSENT NOTICE

**MEASURING HIGH SCHOOL COUNSELOR BELIEFS ON THE IMPORTANCE OF
MTMDSS UNIVERSAL SUPPORTS SINCE COVID-19**

RESEARCHERS

Ryan Carter, Educational Leadership Doctoral Student, San José State University &
Brent Duckor, Ph.D., Faculty Advisor, San José State University

PURPOSE

The purpose of this study is to examine and measure California high school counselor beliefs on the importance of Multi-Tiered, Multi-Domain System of Supports (MTMDSS) Universal Supports since the onset of the COVID-19 pandemic.

PROCEDURES

In this voluntary interview, you will be asked to respond to questions about your beliefs about multi-tiered, school counseling support interventions. Interviews will take place virtually online, via Zoom web-based teleconferencing (audio only). You may “opt-out” of the interview at any time and you may choose to not answer any question during the interview. This interview should take about 30 minutes to complete.

COMPENSATION

No compensation will be given for participating in this study.

CONFIDENTIALITY

Interview responses will be kept confidential. No directly identifiable information will be collected during the interview. Where data are reported, no potentially identifying information will be used and your individual confidentiality will be maintained in the final study and any resulting publications. This interview will be audio recorded for transcription. Transcription will be completed by the Graduate Student researcher and a third-party vendor contracted with the program. Interviews transcribed by the third-party vendor will be edited and any potentially identifying information will be deleted before transcription begins. Only the researchers listed above will have access to the data from this study.

YOUR RIGHTS

Your participation in the study is completely voluntary. You can refuse to participate in the entire study or any part of the study without any negative effect on your relations with San Jose State University. You also have the right to skip any question you do not wish to answer.

CONTACT INFORMATION

For further information about the study, please contact Ryan Carter (ryan.carter@sjsu.edu or 415-235-8322) or Dr. Brent Duckor, (brent.duckor@sjsu.edu or 510-375-1910).

AGREEMENT TO PARTICIPATE

Your completion of the study indicates your willingness to participate. Please keep this document for your records.

Appendix I

Generalized Item Analysis—USIS Part 1 (Items Q1-21)

Okay

Statistics	Response Categories		
	0	1	2
Q1			
Count	13	31	69
Percent	11.50	27.43	61.06
Pt-Biserial	-0.32	-0.36	0.54
Mean Location	0.21	0.63	2.13
St. Dev. Of Locations	0.67	1.01	1.36
Q2			
Count	8	30	75
Percent	7.08	26.55	66.37
Pt-Biserial	-0.26	-0.31	0.43
Mean Location	0.27	0.62	1.98
St. Dev. Of Locations	1.20	0.94	1.40
Q3			
Count	5	25	83
Percent	4.42	22.12	73.45
Pt-Biserial	-0.30	-0.42	0.53
Mean Location	-0.07	0.41	1.92
St. Dev. Of Locations	1.17	0.89	1.37
Q4			
Count	12	48	53
Percent	10.62	42.48	46.90
Pt-Biserial	-0.26	-0.34	0.50
Mean Location	0.52	0.87	2.29
St. Dev. Of Locations	1.46	1.06	1.35
Q5			
Count	14	26	73
Percent	12.39	23.01	64.60
Pt-Biserial	-0.31	-0.34	0.51
Mean Location	0.35	0.54	2.06
St. Dev. Of Locations	1.20	0.92	1.34
Q6			
Count	5	21	87
Percent	4.42	18.58	76.99
Pt-Biserial	-0.13	-0.49	0.52
Mean Location	0.72	0.22	1.85
St. Dev. Of Locations	1.04	0.90	1.39

Q7			
Count	15	33	64
Percent	13.39	29.46	57.14
Pt-Biserial	-0.24	-0.34	0.48
Mean Location	0.56	0.72	2.14
St. Dev. Of Locations	1.37	0.95	1.37
Q8			
Count	16	36	60
Percent	14.29	32.14	53.57
Pt-Biserial	-0.38	-0.27	0.52
Mean Location	0.22	0.83	2.26
St. Dev. Of Locations	1.13	0.85	1.38
Q9			
Count	8	48	54
Percent	7.27	43.64	49.09
Pt-Biserial	-0.36	-0.36	0.54
Mean Location	-0.35	0.82	2.36
St. Dev. Of Locations	0.99	0.85	1.38
Q10			
Count	18	46	46
Percent	16.36	41.82	41.82
Pt-Biserial	-0.49	-0.23	0.60
Mean Location	0.05	0.97	2.58
St. Dev. Of Locations	0.99	0.86	1.30
Q11			
Count	16	45	48
Percent	14.68	41.28	44.04
Pt-Biserial	-0.44	-0.17	0.49
Mean Location	0.01	1.04	2.43
St. Dev. Of Locations	1.02	0.81	1.44
Q12			
Count	9	44	54
Percent	8.41	41.12	50.47
Pt-Biserial	-0.30	-0.36	0.51
Mean Location	0.14	0.83	2.31
St. Dev. Of Locations	1.41	0.96	1.37
Q13			
Count	9	49	49
Percent	8.41	45.79	45.79
Pt-Biserial	-0.38	-0.40	0.61
Mean Location	-0.19	0.81	2.53
St. Dev. Of Locations	0.99	0.93	1.27
Q14			
Count	19	48	40

Percent	17.76	44.86	37.38
Pt-Biserial	-0.46	-0.15	0.15
Mean Location	0.08	1.23	2.54
St. Dev. Of Locations	0.91	1.16	1.29
Q15			
Count	3	35	68
Percent	2.83	33.02	64.15
Pt-Biserial	-0.15	-0.49	0.53
Mean Location	0.32	0.52	2.12
St. Dev. Of Locations	0.84	0.91	1.38
Q16			
Count	9	37	59
Percent	8.57	35.24	56.19
Pt-Biserial	-0.42	-0.30	0.53
Mean Location	-0.14	0.86	2.22
St. Dev. Of Locations	1.00	0.89	1.41
Q17			
Count	7	41	56
Percent	6.73	39.42	53.85
Pt-Biserial	-0.21	-0.52	0.62
Mean Location	0.28	0.58	2.35
St. Dev. Of Locations	0.19	0.98	1.29
Q18			
Count	11	45	47
Percent	10.68	43.69	45.63
Pt-Biserial	-0.48	-0.30	0.59
Mean Location	-0.12	0.90	2.52
St. Dev. Of Locations	0.79	1.01	1.21
Q19			
Count	15	46	42
Percent	14.56	44.66	40.78
Pt-Biserial	-0.44	-0.29	0.61
Mean Location	0.00	1.01	2.64
St. Dev. Of Locations	0.76	0.99	1.24
Q20			
Count	10	36	55
Percent	9.90	35.64	54.46
Pt-Biserial	-0.33	-0.35	0.54
Mean Location	0.01	0.73	2.32
St. Dev. Of Locations	0.88	0.81	1.38
Q21			
Count	5	36	60
Percent	4.95	35.64	59.41
Pt-Biserial	-0.38	-0.34	0.49

Mean Location	-0.47	0.73	2.17
St. Dev. Of Locations	1.23	0.77	1.42
