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Mental Health Promotion, Early Identification & Treatment Services and Supports in Public K-12 School Districts: Three Case Studies to Explore Available Resources, Interventions, and Community Partnerships

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MENTAL HEALTH PROMOTION, EARLY IDENTIFICATION & TREATMENT SERVICES AND SUPPORTS IN PUBLIC K-12 SCHOOL DISTRICTS:

THREE CASE STUDIES TO EXPLORE AVAILABLE RESOURCES, INTERVENTIONS, AND COMMUNITY PARTNERSHIPS

By

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Abstract. **Objective**: This study: 1) identifies the multi-tiered efforts public K-12 school districts in a large Midwestern metropolitan area use to support mental health promotion activities and comprehensive mental health services, and 2) compares district efforts to domains defined by the National Center for School Mental Health (NCSMH). **Participants**: A sample of public K-12 school districts (n=12) in a large Midwestern metropolitan area participated in this study from August 2021 to October 2022. **Methods**: Using the Multi-Tiered Systems of Support (MTSS) intervention framework, a series of three case studies identify the resources public K-12 school districts utilize to support mental health promotion and mental health services, the interventions used by districts to coordinate comprehensive systems of care that provide mental health promotion and mental healthcare services to students, and the community partnerships districts utilize to address the three MTSS tiers of student mental health need. **Results**: Significant between-group variation exists between the mental health promotion activities, early interventions, and mental health treatment services and supports offered by participating school districts due to the availability of context-specific resources, variety of interventions used, and availability/utilization of diverse community partnerships. Not surprisingly, the participating districts follow some, but not all of the evidence-informed practices offered by the National Center for School Mental Health in the following three domains: 1) funding and sustainability; 2) MTSS tiers of intervention services and supports; and 3) teaming. **Conclusion:** Although exceptions exist, many public K-12 school districts report systematic struggles to develop the diverse community partnerships needed to provide adequate mental health promotion, early intervention, and mental health treatment services and supports to their students. Limited resources, mental healthcare workforce shortages, systematic communication failures between medical and educational systems, and the stigma of mental illness still hinder many districts to provide sustainable, comprehensive mental health services to students in need.

Keywords: mental health promotion, comprehensive school mental health systems, multi-tiered systems of support, K-12 education, case study series

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Mental Health in School-Aged Children

All school-based mental healthcare service provision is local. Students who access mental healthcare services do so within layers of their local, social ecological context (Engel, 1980) and are more likely to access mental healthcare services in educational settings compared to medical settings (Gustafson et al., 2021). The schools that children, adolescents, and young adults attend have an opportunity to support their students' ability to promote positive mental health and manage dysfunctional mental health symptoms by creating a safe, welcoming, and affirming learning environment (US Surgeon General, 2021).

Before the COVID-19 pandemic, one in five US children – 3 to 17 years old – was diagnosed with a developmental, mental, or behavioral health disorder (Perou et al., 2013). Furthermore, SAMHSA (2019a) estimates that 24,000 US youth ages 12-17 have experienced a major depressive episode, defined as "a period of at least 2 weeks when an individual experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms." Pre-pandemic – from 2011 to 2015 – there was a 28% increase in emergency room usage for US youth for acute psychiatric mental health services (Kalb et al., 2019). In 2021, emergency department visits for US youth suspected of attempting suicide increased 4% for boys and 51% for girls compared to respective rates in 2019 (Yard et al., 2021). Not surprisingly, youth across the globe also report that their depressive and anxious symptoms doubled during the COVID-19 pandemic (Racine et al., 2021).

Within schools, certain populations of students are particularly vulnerable to struggle with managing their mental health (SAMHSA, 2015a), including sub-populations of students who were vulnerable before the pandemic – e.g. students who live in poverty, have unstable housing, are differently abled, or of a minority racial, ethnic, language, immigration, sex, or LGBTQ+ status (Department of Education, 2021). In addition, some students lack access to school-based mental health assessment (Skarr et al., 2020) and many students who may be eligible for school-based mental healthcare services are not referred to mental healthcare professionals for assessment due to living in a state with little or no legal guidance related to school-based mental healthcare service provision (Education Commission of the States, 2020).

Across the US, public school districts have hired personnel to provide mental health services to students (Shelton and Owens, 2021). In addition to paid personnel, school districts create a constellation of useful services for their students through developing partnerships with local mental healthcare providers outside of the educational system. Community health centers provide a spectrum of medical, dental, and behavioral health services and healthcare systems across the nation serve a spectrum of student mental health needs (Greig et al., 2019; Kranz et al., 2020). For example, the state of Nebraska has 820 total public K-12 schools, 244 total school districts (NE Dept of Ed, 2021), and is divided into six management regions

(Appendix A) who provide mental and behavioral health (MBH) services to students and families in need (NE DHHS Div. of BH, 2021).

Although public health-informed legislation like the Mental Health and Addiction Parity Act has improved student access and utilization of mental healthcare services (Mulvaney-Day et al., 2019), the COVID-19 pandemic has exacerbated the barriers students face to access mental healthcare services, including but not limited to economic and social barriers (DHHS Office of Disease Prevention and Health Promotion, 2021). Because their parents are often working during non-school day hours, many school-aged youth living in urban communities have limited access to mental healthcare services outside of the school day (Gustafson et al., 2021). In addition, immigrant and American Indian communities report access and utilization disparities due to language barriers, a lack of healthcare literacy – i.e. not knowing where to go for mental healthcare services – and struggling to connect with healthcare providers because of cultural mismatch and misunderstandings about the western medical system (Chadwick and Collins, 2015; West et al., 2011; Mollah et al., 2018). In Nebraska, racial and ethnic minority populations account for approximately 22% of the total state population and face compounding healthcare service disparities including language barriers, citizenship issues, poverty, low educational attainment, and limited access to providers who can deliver culturally humble mental healthcare services (NE DHHS Div. of PH, 2021). For school-aged adolescents, specific barriers to accessing mental health services include a lack of knowledge about who to go to if they experience mental health struggles, the social stigma of obtaining mental health treatment, not trusting the confidentiality of conversations with mental health professionals, and the lack of availability to meet with mental health providers (Radez et al., 2020). Within the literature and for the remainder of this paper, the terms mental healthcare and behavioral healthcare will be used interchangeably (BHECN, 2021).

Systems Change in the Educational Context

Research utilization theory provides a useful lens to view system-level change in educational settings (Lawlor et al., 2019). In 1979, Carol Weiss succinctly stated that the use of social science research is dependent on the time at which the research appears useful to society,

> "…unless a social condition has been consensually defined as a social problem, and unless the condition has become fully politicized and debated, and the parameters of potential action agreed upon, there is little likelihood that policy-making bodies will be receptive to the results of social science research."

School mental health is a socially relevant condition that addresses all of the above conditions of Weiss' (1979) definition. Numerous national entities in the United States agree that the mental health of

students is a relevant and pressing social priority, including the US Surgeon General (2021), US Department of Education (2021), and US Department of Health and Human Services (Healthy People 2030, 2022a-c). Furthermore, the concept of mental health stigma has emerged as a controversial topic across the country which has been discussed, debated, and politicized (Nyblade et al., 2019; NCSMH, 2020a-e; Clark et al., 2013), especially due to the recent mass school shootings across the country that involve perpetrators who have histories of disruptive mental health issues. Finally, a national body - the National Center for School Mental Health - has emerged as a resource to help educational and mental health service delivery systems define the parameters of potential action they can take to adequately address current student mental health needs (NCSMH, 2022). By necessity, population-based approaches to school mental health include interactions between diverse networks of individuals, communities, financial and material resources, and political structures. The neighborhoods and communities within which school districts operate have complex barriers driven by local resource scarcities, socioeconomic trends, and power dynamics (Alegría et al., 2018; DHHS, 2021; Healthy People 2030, 2022c). When communities develop comprehensive school mental health systems, they provide students and their families adequate services and supports to address the social determinants of mental health, including but not limited to resources that address employment hardships; economic and migrant status – e.g., material hardships; familial and relationship stressors; trauma histories; neighborhood safety; and discrimination based on race, ethnicity, nationality, gender and/or sexual orientation (Hodges et al., 2010; Miller et al., 2012; Gustafson et al., 2021; Lean & Colucci, 2013; Alegría et al., 2018). In particular, local interactions between educational and medical systems drive the success and/or failure of public K-12 school districts and their communities to develop and maintain comprehensive school mental health systems (Hoover et al., 2019; NCSMH, 2022).

In 2014, the National Center for School Mental Health and School-based Health Alliance acquired funding to conduct a National Quality Initiative (NQI) to “grow the number of school-based health centers and comprehensive school mental health systems and to improve the quality of services” (NCSMH, 2022). One goal of NQI was to develop consensus at a national level to create performance standards that would measure the quality and sustainability of school health activities. Before 2016, no national standards existed in the United Sates to measure comprehensive school mental health performance. Funded by the US Health Resources and Services Administration (HSRA) Maternal and Child Health Bureau (MCHB), Connors et al. (2016) coordinated a national effort “to advance accountability, excellence, and sustainability for school health services nationwide.” Using Donabedian’s (1988) Quality-of-Care Framework, NQI created performance indicators to measure the structural attributes of care settings, processes of care, and population-level outcomes, resulting in the creation of performance assessments which educators could use to collect population-level data, including but not limited to tracking the quality and sustainability of school-based mental healthcare outcomes in the three Multi-Tiered Systems of Support (MTSS) tiers of care. Driven by the

inconsistency of health care service delivery systems at the time, NQI addressed a critical gap by developing behavioral healthcare indicators relevant to school mental health settings and creating performance benchmarks for school-based mental and behavioral healthcare (Connors et al., 2016; Ganju, 2006). The end result of NQI was the creation of two performance measurement tools: 1) the School Mental Health Quality Assessment Tool, and 2) the School Mental Health Sustainability Assessment Tool. Both tools have school building and school district versions and highlight two domains: 1) *Quality* – using 47 indicators within 7 domains, and 2) *Sustainability* – using 20 indicators within 5 domains (Connors et al., 2016). The SHAPE system is a direct result of NQI and is being used to address critical issues to improve the quality and sustainability of comprehensive school mental health systems (Connors et al., 2020). The US Department of Health and Human Services, via the Behavioral Health Administration – i.e., "*the 1915(c) Home and Community-Based Waiver Program Management, Workforce Development and Evaluation and the Maternal and Child Health Bureau (MCHB), Division of Child, Adolescent and Family Health, Adolescent Health Branch of the Health Resources and Services Administration (HRSA)*" - funds SHAPE to assess the quality and sustainability of multi-tiered school health practices across the nation (NCSMH, 2022). Within SHAPE, the National School Mental Health Quality Assessment (SMH-QA) provides a tool for districts to: 1) "assess the comprehensiveness of their school mental health system," and 2) "identify priority areas for improvement" (NCSMH SMH-QA, 2021).

School districts - the primary vehicles through which organizational change occurs in the educational setting – are responsible to consider national recommendations related to school mental health promotion, early intervention, and treatment services and supports (NCSMH, 2020a), prompt social and system change (NCSMH, 2020c), use data to drive decision making processes, disseminate evidence-informed mental health prevention practices to their educators, and develop sustainable partnerships with local community mental healthcare systems (NCSMH, 2020e). Furthermore, districts are recommended to successfully utilize financial and professional resources from local, state, and national sources (NCSMH, 2020d); sustain comprehensive school mental health systems; and continue investing in professional development useful to educators. Finally, districts nationwide need to assess and address any perceived stigma associated with their students who access mental healthcare in their respective communities (NCSMH, 2020a-e).

Implementation research informs many school district administrators as they lead organizational change. For example, district-level administrators can choose from a variety of organizational intervention frameworks, including but not limited to ARC – Availability, Responsiveness, and Continuity (Glisson & Schoenwald, 2005); the Quality Collaborative Model (Ebert et al., 2012); Prosper – PROmoting School-community-university Partnerships to Enhance Resilience (Spoth et al., 2011); Response to Intervention (Adelman & Taylor, 2012); the replicating effective programs framework (Kilbourne et al., 2007); the dynamic

adaptation process (Aarons et al., 2011; Wiltsey Stirman et al., 2012); and the School-based Integrated Support Services Model (Lean & Colucci, 2013). The aforementioned organizational intervention frameworks are designed to: 1) provide intervention and implementation support to district leaders, and 2) integrate evidence-informed mental health prevention, early intervention, and treatment practices into educational settings. To successfully implement evidence-informed and system-wide interventions, a number of organizational characteristics must be considered. Many schools incorporate one or more of the following implementation concepts when introducing organizational change: organizational context (Hughes, Lloyd, & Buss, 2007); fostering organizational readiness (Aarons et al., 2012); de-implementing non-evidence based practices and norms (Niven et al., 2015); building organizational capacity (Durlak & DuPre, 2008), or; using the Two-Factor Model of Innovation Implementation in the Workplace (Klein and Sorra, 1996). The three following case studies utilize systems change concepts from research utilization theory (Farrell et al., 2022) and integrated knowledge translation and exchange (Armstrong et al., 2006; McIsaac et al., 2018).

A Public Health Approach to School-Based Mental Health Intervention

Clearly defining positive mental health, mental health problems, and mental health interventions are essential to understanding how MBH services are rendered in public K-12 schools. *A Public Health Approach to Children's Mental Health* (Miles et al., 2010) defines positive mental health as "high levels of life satisfaction, positive affect (emotional well-being), and psychosocial functioning (psychological and social well-being)" and mental health promotion actions as activities that "optimize positive mental health by addressing determinants of mental health." In addition, Miles et al. (2010) defines mental health problems as "the spectrum of mental problems ranging from serious mental illness to problematic behavior that has been shown to indicate later mental disorders." Finally, mental health interventions are defined by Miles et al. (2010) as "any effort that attempts to change a current situation with an individual, group, subpopulation, or population."

Multi-Tiered Systems of Support (MTSS)

Although there are evidence-based programming and best practices currently available to alleviate disruptive student symptoms (Community Preventive Services Task Force, 2019a & 2019b), a nationwide increase in reported student mental health needs has spotlighted the importance of US education systems to establish guidance for school districts to implement evidence-informed social, emotional, behavioral, and mental health interventions (Bateman and Yell, 2019). Even before the COVID-19 pandemic, many districts struggled to justify spending money that promotes positive mental health and prevents disruptive student mental health issues, sometimes called “invisible illnesses” (SAMHSA, 2019b). In addition, paying for school-based mental healthcare services is a barrier for many school districts (Maag and Katsiyannis, 2010), and many schools still struggle to employ enough clinical counselors, social workers, and psychologists to address their students’ mental health needs (Healthy People 2030, 2022a). To address these issues, Healthy People 2030 (2022a) includes a goal to “increase the proportion of public schools with a counselor, social worker, and psychologist.” At a state level, Nebraska schools are providing an aggregation of evidence-based services – e.g. crisis/emergency response, inpatient hospitalization, outpatient and rehabilitation services (DHHS, 2021) – to combat disruptive student mental health issues (NE DHHS Div. of BH, 2021), but mental health service disparities still exist for many of Nebraska’s most vulnerable student populations (NE YRBS, 2018) and comprehensive systems of care still need to be developed and supported in sustainable ways (Schwean & Rodger, 2013). In summary, some K-12 public districts across the US are able to provide mental health promotion, early intervention, and mental health treatment services to their students – but many do not.

On December 7th, 2021, the United States Surgeon General (2021) released an advisory named *Protecting Youth Mental Health*, which included a number of recommended action steps that educators, school staff, and school districts can take to address the increasing mental health service needs of their students. These recommendations include creating a safe, inclusive learning environment; expanding the implementation and scale of social emotional learning (SEL) programs and evidenced-based practices related to healthy development (Healthy People 2030, 2022b); learning how to identify health changes and taking appropriate action when indicated; providing a continuum of care to students based on their mental health needs – e.g. trauma-informed care and evidence-informed mental healthcare practices (Community Preventive Services Task Force, 2019a & 2019b); expanding the current workforce to meet the needs of school-based mental healthcare needs (Healthy People 2030, 2022a); supporting the health of everyone affiliated with schools – e.g. students, teachers, staff, and their families; promoting student enrollment in insurance plans – e.g. Medicaid and CHIP – to improve student access to mental and behavioral healthcare services; and prioritizing students who are predisposed or vulnerable to experiencing mental health struggles – i.e. students

who are differently abled, have a family member with a mental illness, or are at higher risk due to adverse childhood experiences (ACEs) or poverty (US Surgeon General, 2021).

Building on the theoretical foundations of Lewin's (1946) action research and Engel's (1980) social ecological model, the World Health Organization (WHO, 2018) defines mental health as "a state of well-being in which [an] individual realizes [their] own abilities, can cope with the common stresses of life, can work productively, and is able to make a contribution to [their] community." Whether or not a child establishes developmentally appropriate competencies predicts protective and risk factors in later stages of their development (National Research Council and Institute of Medicine, 2000). In the context of school mental health, developmental milestones and competencies are observed by educators when children enter school grounds and classrooms. Examples of developmental competencies include a child's ability to demonstrate secure attachment, emotional regulation, executive functioning, and appropriate conduct (O'Connell, 2009). Furthermore, evidence-based programming designed to intervene with social, emotional, and behavioral outcomes are available to public K-12 school districts, but not all districts systematically implement programming with the same vigor or fidelity (US Department of Education, 2021). Depending on local context, some districts track students' educational and developmental outcomes with the understanding that social determinants of health – e.g., economic stability; neighborhood and built environment; social and community context; educational access and quality; and healthcare access and quality (Healthy People 2030, 2022c) – impact their students' ability to achieve positive mental health and academic outcomes.

To measure outcomes and implement evidence-informed practices, many public K-12 school districts in the US utilize Multi-Tiered Systems of Support (MTSS, Figure 1), a tiered intervention framework that targets academic and MBH outcomes within the academic context. In the following sections, each MTSS tier is defined and described to frame the three dissertation case studies.

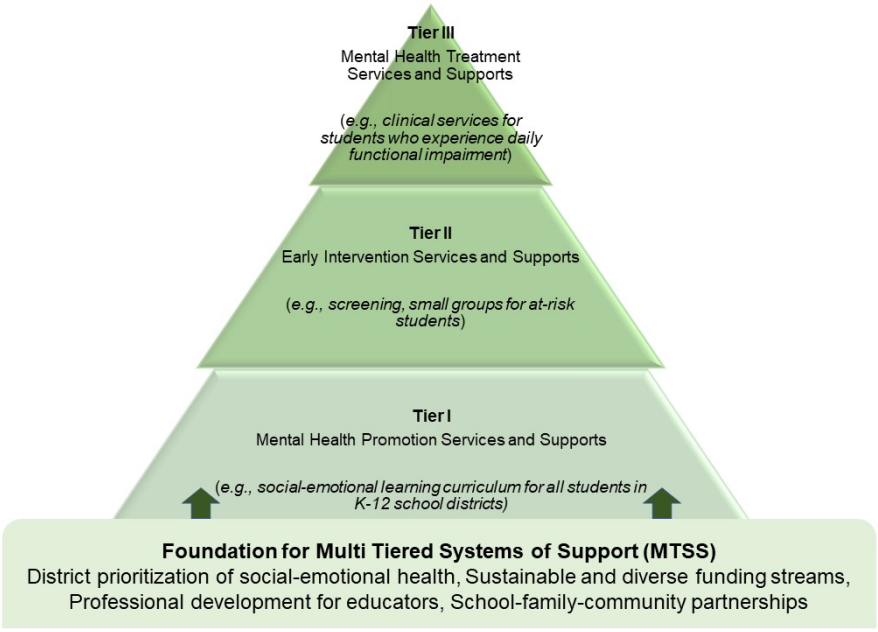

Figure 1: Multi-Tiered Systems of Support Intervention Framework (Adapted from Hoover et al., 2019)

MTSS Tier I – Mental Health Promotion Services & Supports

According to O'Connell et al. (2009), mental health promotion interventions include interventions which target entire populations to achieve developmental competencies and enhance a "positive sense of self-esteem, mastery, and well-being" including the encouragement of students to engage in developmentally appropriate social interactions and demonstrate an ability to cope with adversity. For example, school districts that systematically implement social emotional learning (SEL) curriculum are using a mental health promotion intervention (Hoover et al., 2019). Universal prevention interventions are very closely related to mental health promotion interventions and defined as interventions that are "effective and acceptable to the [general population of students in a school]" (O'Connell, 2009). In the context of school mental health, health promotion and universal prevention interventions are used interchangeably (Hoover et al., 2019). In other words, districts that implement universal health promotion activities and illness prevention interventions define and use a set of context-dependent practices intended to yield positive results for student mental health (Miles et al., 2010).

In line with Miles et al. (2010) *Children's Mental Health Public Health Intervention Spectrum*, universal mental health promotion and illness prevention activities are grouped within Tier I of MTSS mental health promotion services and supports (SAMHSA, 2015b). Mental health promotion services and supports include the environment that students experience when they walk into their school and the universal programming offered to all students in a district (PBIS Center, 2020). In addition, many districts utilize school-wide SEL

curricula which emphasize learning outcomes to help students self-regulate, respond positively to teacher instruction/feedback, develop pro-social behaviors with their peers, have less dysfunctional MBH issues, and improve academic outcomes (Cook et al., 2015, Community Preventive Services Task Force, 2019b). Jones et al. (2015) found that social emotional skills are associated with not just downstream educational outcomes, but also outcomes in future employment, criminal activity, substance use, and mental health. Examples of evidence-informed Tier I preventative practices include Positive Behavioral Interventions and Supports (PBiS) and SEL curricula (Cook et al., 2015) – e.g., *Second Step, Caring School Community, Harmony, Choose Love,* and *Zones of Regulation* (US Department of Education, 2021). Each SEL curriculum is designed to align with competencies defined by accrediting bodies – e.g., CASEL or the American School Counselor Association (CASEL, 2022; American School Counselor Association, 2021). Furthermore, universal school-based cognitive behavioral therapy (CBT) programs have been shown to reduce both depression and anxiety symptoms in youth (Community Preventive Services Task Force, 2019b), so some schools implement these evidence-based programs as Tier I MBH services. To effectively implement Tier I interventions, the National Center for School Mental Health (NCSMH, 2020a) developed recommended best practices schools can implement to improve the mental health promotion services they offer to students.

It is important to note that the majority of K-12 public school districts in the US offer SEL curricula as a complement to their academic curricula (Arora et al., 2016; US Department of Education, 2022). For most students – approximately 80% – universal prevention strategies are effective, but for students with greater mental health needs NCSMH (2020b) also released recommended best practices that schools can implement to improve their Tier II school-based MBH services.

MTSS Tier II – Early Intervention Services & Supports

For approximately 15% of school-age youth, universal MBH prevention services and supports are not adequate (Asby et al., 2020). In these cases, districts need to implement early intervention services and supports for students who present with increased social, emotional, and behavioral needs (US Department of Education, 2021). In other words, some students develop functional impairments and mental health struggles which require a higher level of care (Hoover et al., 2019). Examples of MTSS Tier II services include small group interventions related to specific needs and/or individual risk factors – e.g. social skill groups; student groups to teach symptom management techniques to students with sub-clinical anxiety, depression, grief, or emotional trauma (Asby et al., 2020) – and evidence-informed service supports – e.g., *Check In Check Out; Check & Connect; Check, Connect, and Expect* (US Department of Education, 2021).

Guided by the determinants of health (Healthy People 2030, 2022c), early intervention services and supports are congruent with the Institute of Medicine's (IOM) concept of selective and indicated prevention interventions which target specific sub-populations of the general student population (O'Connell, 2009). Examples of early interventions include activities that optimize positive functioning for students – e.g., the development of community-driven cultural programs and collaborative efforts between schools and local community entities which enhance students' abilities to develop healthy relationships and lifestyle choices – inside and outside of school (Miles et al., 2010). In addition, examples of focused illness prevention interventions include "small group interventions… or low-intensity classroom-based supports" (Hoover et al., 2019) which target the biological, psychological, social, or environmental risk factors students experience, including but not limited to children who experience parental divorce, abuse, substance use or the death of a family member (O'Connell, 2009). Focused prevention interventions may also target students who are displaying detectable, but sub-clinical symptoms of MBH disorders which indicate brief individualized interventions or mentoring services (O'Connell, 2009; Hoover et al., 2019).

Screening practices and Positive Behavior Interventions (PBiS) are also included as early intervention services. For example, many districts implement a variety of formal and informal functional behavioral assessments and create individualized support plans to address their students' academic, behavioral, and mental health needs (Cook et al., 2015; Miles et al., 2010). At times, early assessment and intervention leads to the identification of MBH symptoms which indicate Tier III services – i.e., clinical treatment by MBH specialists (Barret et al., 2013). Furthermore, PBiS interventions highlight asset-based activities that encourage students to develop culturally-meaningful goals and enhance the universal school-based health promotion concepts of inclusion and well-being in school communities (Miles et al., 2010).

In addition to Tier I universal CBT programs, some districts also choose to implement targeted school-based CBT programs to reduce both depression and anxiety symptoms in school-age youth identified as being at an increased risk to develop MBH issues (Community Preventive Services Task Force, 2019a). Targeted CBT programs are appropriate for students who are identified as having increased social emotional needs and are designed to "help [at-risk] students develop strategies to solve problems, regulate emotions, and establish helpful patterns of thought and behavior" (Community Preventive Services Task Force, 2019a). As noted in the previous section, universal Tier I strategies are not effective for all school-age youth and early intervention services are indicated for approximately 15% of school-age youth (Asby et al., 2020). Whatever Tier I and II services and supports districts utilize, the effective implementation of a coherent system of care – e.g., school-based systems which incorporate Tier III services and supports – still varies greatly across the nation (Smith et al., 2020; Adelman, 2002).

MTSS Tier III – Treatment Services & Supports

At the highest level of care on the MTSS intervention spectrum, students receive individualized treatment services provided by professional helpers (Hoover et al., 2019; US Department of Education, 2021; Miles et al., 2010). Student who require MTSS Tier III interventions experience significant, functionally disruptive mental health challenges that impede their ability to effectively engage with the learning environment (NCSMH, 2020b). SAMHSA (2019a) defines receiving mental health services as "having received inpatient treatment/counseling or outpatient treatment/counseling or having used prescription medication for problems with emotions, nerves, or mental health." In the context of school mental health, students with clinical mental health needs are provided treatment services by licensed mental health professionals including psychiatrists, psychologists, social workers, and therapists.

Students are six times more likely to complete mental health treatment if it is offered in their school environment, as compared to treatment services offered in a community setting (Jaycox et al., 2010). To support their students with highest relative need, many school districts develop partnerships with local community organizations and mental health providers to complement the mental health promotion and early intervention services offered within MTSS Tier I and Tier II (Hoover et al., 2019). Approximately 5% of school-aged youth need Tier III treatment services and on-going clinical care (Asby et al., 2020), although whether or not they receive care depends on the infrastructure, policies, and practices of their local school district (Adelman & Taylor, 2021).

National Center for School Mental Health Domains

To systematically address student mental health needs across the United States and provide standardized guidance to school district leadership teams, the National Center for School Mental Health (NCSMH, 2020a-e) recommends districts – and the schools within districts – to use the following best practices across three domains: interventions, community partnerships, and resources.

Interventions

MTSS Tier I

Defined as "activities that positive social, emotional, and behavioral skills and well-being [for] all students" (NCSMH, 2020a), best practice recommendations for mental health promotion include: 1) assessing and improving school climate; 2) assessing and improving teacher and staff well-being; 3) setting school-wide expectations about positive behaviors; 4) implementing school-wide positive reinforcement systems that promote positive behaviors; 5) preventing and addressing conflict; 6) reducing exclusionary discipline practices; 7) increasing mental health literacy for all students; 8) increasing social and emotional learning opportunities [for students, parents, and educators]; 9) determining whether services and supports are evidence-informed; 10) ensuring Tier I supports and services fit school needs; 11) ensuring adequate resource capacity; 12) supporting the implementation of mental health promotion services; and 13) monitoring the fidelity of mental health promotion services and supports across all three MTSS tiers (NCSMH, 2020a).

MTSS Tiers II & III

Mental health early intervention services identify and support impaired students who experience mild MBH distress and mental health treatment "addresses [student] mental health concerns for students who are already experiencing significant distress and impaired functioning" (NCSMH, 2020b). NCSMH recommends districts to utilize the following early intervention and mental health treatment best practices: 1) determining whether or not services are evidence-informed; 2) matching treatment services and supports to the unique strengths, needs, and cultural/linguistic considerations of students and families; 3) ensuring the implementation of treatment services and supports are supported by adequate resource capacity; 4) supporting educator training, professional development, and implementation; 5) monitoring implementation fidelity; 6) creating Specific, Measurable, Achievable, Relevant, and Time-bound (SMART) intervention goals; 7) monitoring individual student progress across tiers; and 8) implementing a systematic protocol for emotional and behavioral crises (NCSMH, 2020b).

Community Partnerships

NCSMH (2020c; 2020d) also recommends the following best practices related to “teaming” which apply to all three tiers and include developing practices that school districts can use to sustain community partnerships to address mental health treatment needs through developing: 1) multidisciplinary teams; 2) youth and family partnerships; 3) [system] efficiency; 4) meeting structures and processes; 5) delineated roles and responsibilities; 6) effective referral processes to school services; 7) effective community service referral processes; 8) data-based decision [protocols] for student interventions; and, 9) data sharing [policies and practices].

Resources

To ensure school MBH efforts are sustainable, NSCMH (2020d) recommends a handful of best practices to help districts acquire adequate financial resources for all three MTSS tiers, including to: 1) use multiple and diverse funding resource to support a continuum of care; 2) coordinate funding streams; 3) ensure funding and resources align to support a full continuum of care; 4) establish a process to develop, evaluate, and update financial planning; 5) leverage funding and resources to attract potential contributors; 6) have strategies in place to maintain staff; and, 7) maximize the expertise and resources of school mental health partners.

Literature Gaps

Many public K-12 school districts in the US already implement an MTSS framework to identify and support students to achieve competency in various academic subjects, but not all districts view MBH outcomes with the same rigor as literacy, math, or science (Adelman, 2002). To achieve positive mental health, students require individualized and responsive support to develop social and emotional competencies – e.g., self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (CASEL, 2022). As noted in the literature, nearly all districts track behavioral outcomes like attendance, discipline referrals, and suspensions for disruptive student behaviors, but the COVID-19 pandemic has highlighted the limitations of educational system capacities (von der Embse et al., 2018) and a paradigm shift for districts to use public health-informed strategies and health promotion interventions to support student and educator success (US Surgeon General, 2021; US Department of Education, 2021). In other words, districts who use the MTSS framework can help create sustainable and comprehensive school mental health systems to serve students, families, and their local communities (Miles et al., 2010). For example, Schwean and Rodger (2013) developed an Interconnected System of Care model that marries MTSS and the *Children's Mental Health Public Health Intervention Spectrum* (Appendix B). Within each tier of the Interconnected System of Care, research-to-practice gaps exist between the daily practices public K-12 school districts use to address student mental health needs and the evidence-informed national domain recommendations available to districts (NCSMH, 2020a-e). Before they can improve the mental health promotion, early intervention, and treatment services they offer to students, districts are recommended to identify best practices to develop diverse and multidisciplinary resources which promote positive mental health for students; implement evidence-informed practices when responding to student mental health needs; and sustain collaborative community partnerships to address student mental health needs (US Surgeon General, 2021; US Department of Education, 2021; Fabiano & Evans; 2019; Schwean & Rodger, 2013; O'Connell, 2009; Miles et al., 2010).

Highlighting the research-to-practice gaps noted above, Hoover et al. (2019) recommends schools to develop a comprehensive school mental health system to support student mental health which includes *the use of MTSS to implement and support evidence-informed practices that promote positive mental health and reduce mental illness, effective screening, referral, and evidence-based treatment practices*. Furthermore, the US Department of Education (2021) recommends that districts improve mental health literacy and reduce the barriers students experience when attempting to access mental healthcare. Some districts have already implemented SEL curricula and trauma-informed care (TIC) models to address mental health stigma, but many still need to formalize their strategic priorities to include positive mental health; implement policy changes that encourage mental health promotion, early intervention, and treatment; and improve their collaborative efforts with community partners – e.g. healthcare providers, non-profit organizations, and academic institutions

(Nyblade et al., 2019). In other words, a critical need still exists to “increase the proportion of children and adolescents who get preventive mental health care in school” (Healthy People 2030, 2022b).

Line in step, the US Surgeon General (2021) recommends school districts to develop and sustain public-private research partnerships within the communities they operate – e.g., with healthcare organizations, non-profit community organizations, technology companies, and research-focused institutions. Stated differently, community-driven research is needed to: 1) highlight the diverse resources available to public K-12 school districts; 2) increase the use of evidence-informed mental health promotion, early intervention, and treatment practices; 3) describe the complex barriers of addressing student mental health; and 4) detail how community partnerships can encourage positive mental health, provide early intervention, and link treatment services to students in need (Schwean & Rodger, 2013; O’Connell, 2009; Miles et al., 2010). The three dissertation case studies use MTSS as a tiered intervention framework and include descriptions of how the SHAPE system defines and measures outcomes in three “tiers” of mental health-related services and supports: 1) mental health promotion, 2) early intervention, and 3) treatment (NCSMH, 2022). In particular, the three dissertation studies intend to highlight research-to-practice gaps that exist in the participating school districts’ reported SMH practices; provide information about several evidence-informed practices districts use within each MTSS intervention tier; and describe how certain community partnerships can catalyze and/or remedy the barriers that commonly occur when educational and medical systems interact (NCSMH, 2020a-e; 2022).

Purpose of Dissertation

The purpose of this research is twofold: 1) to address a community-driven need to identify school mental health service practices that target the mental health needs of K-12 students in a large Midwestern metropolitan area, and 2) to compare the identified school mental health service practices to evidence-informed domains defined by the National Center for School Mental Health (NCSMH): interventions, community partnerships, and resources.

Research Questions

Case Study$_1$

1. What resources do school districts use to provide mental health promotion services and supports in K-12 public schools in a large Midwestern metropolitan area?
2. What interventions do K-12 public school districts implement to provide mental health promotion services and supports to students?
3. What community partnerships do districts utilize to provide mental health promotion services and supports to students?

Case Study$_2$

1. What resources do school districts use to provide early intervention services and supports in K-12 public schools in a large Midwestern metropolitan area?
2. What interventions do K-12 public school districts implement to provide early intervention services and supports to students?
3. What community partnerships do districts utilize to provide early intervention services and supports to students?

Case Study$_3$

1. What resources do school districts use to provide treatment services and supports in K-12 public schools in a large Midwestern metropolitan area?
2. What barriers do K-12 public school districts experience when providing treatment services and supports to students?
3. What community partnerships do districts utilize to provide treatment services and supports to students?

Chapter 1 – MTSS Tier I

Introduction

During the COVID-19 pandemic, the deteriorating mental health of school-age children was highlighted and well-documented (Kalb et al., 2019; Yard et al., 2021; Racine et al., 2021). When children are able to regulate their emotions, learn problem solving skills, and develop supportive friendships, they demonstrate critical social emotional competencies and establish positive health trajectories when they become older (Jones et al., 2015; National Research Council and Institute of Medicine, 2000). To support the nation-wide efforts that address social and emotional outcomes in schools, the US Department of Health and Human Services fund and support early childhood education in many states related to SEL curriculum development and implementation – e.g., Office of Head Start, Office of Childcare (McClelland et al., 2017; Frye et al., 2022). Because negative outcomes – e.g., mental/behavioral health (MBH) illness, criminal activity, and lower levels of education – occur when school age children struggle to attain social emotional learning (SEL) competencies (Hauser-Cram & Woodman, 2015), research studies related to positive youth development and social emotional development are commonly used to document evidence-informed mental health promotion efforts (Conroy et al., 2015; Hemmeter et al., 2016). Using federal, state, and private funding sources - some school districts have already invested in programming that promotes positive mental health and implemented universal mental health promotion efforts to alleviate the strain on school mental health (SMH) treatment systems and prevent youth mental illness (US Surgeon General, 2021; US Department of Education, 2021). A few examples of evidence-informed programming include Harmony SEL, Promoting Alternative Thinking Strategies, Ready to Learn, Peaceworks, and Second Step (CASEL, 2022).

To measure outcomes and implement evidence-informed practices, many public K-12 schools in the US utilize the Pyramid Model (Hemmeter et al., 2022) or Multi-Tiered Systems of Support (MTSS, Figure 1), tiered intervention frameworks that target academic and MBH outcomes within the academic context. To frame the following case study, the MTSS intervention framework will be used to define mental health promotion services and supports.

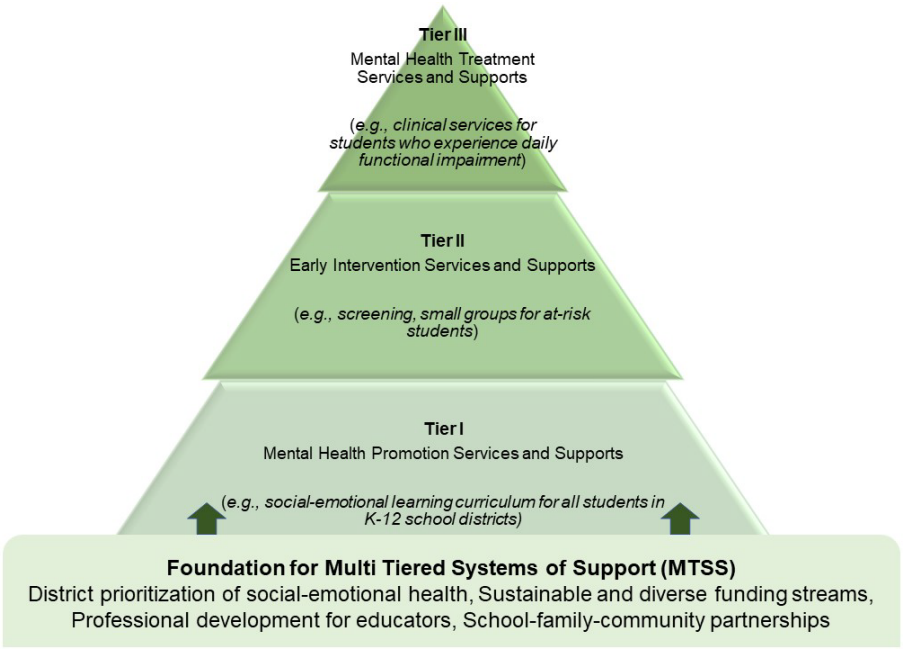

Figure 1: Multi-Tiered Systems of Support Intervention Framework (Adapted from Hoover et al., 2019)

In line with Miles et al. (2010) *Children's Mental Health Public Health Intervention Spectrum*, universal mental health promotion and illness prevention activities are grouped within Tier I of MTSS mental health promotion services and supports (SAMHSA, 2015b). Mental health promotion services and supports include the environment that students experience when they walk into their school and the universal programming offered to all students in a district (PBIS Center, 2020), including interventions which target entire populations to achieve developmental competencies and enhance a "positive sense of self-esteem, mastery, well-being" including the encouragement of students to engage in developmentally appropriate social interactions and demonstrate an ability to cope with adversity (O'Connell et al., 2009). Districts that implement universal health promotion activities and illness prevention interventions define and use a set of context-dependent practices which yield positive results for their students' mental health (Miles et al., 2010) and each SEL curriculum is designed to align with competencies defined by accrediting bodies – e.g., CASEL or the American School Counselor Association (CASEL, 2022; American School Counselor Association, 2021). In addition, many districts utilize SEL curricula which emphasize learning outcomes and help students self-regulate, respond positively to teacher instruction/feedback, develop pro-social behaviors with their peers, have less dysfunctional MBH issues, and improve academic outcomes (Cook et al., 2015, Community Preventive Services Task Force, 2019b). Jones et al. (2015) found that social emotional skills are associated with not just downstream educational outcomes, but also outcomes in future employment, criminal activity, substance use, and mental illness. Examples of evidence-informed Tier I preventative practices include Positive Behavioral

Interventions and Supports (PBiS) and SEL curricula (Cook et al., 2015) – e.g., *Second Step, Caring School Community, Harmony, Choose Love,* and *Zones of Regulation* (US Department of Education, 2021). In the context of school mental health, health promotion and universal prevention interventions are used interchangeably (Hoover et al., 2019) and universal school-based cognitive behavioral therapy (CBT) programs have been shown to reduce both depression and anxiety symptoms in youth (Community Preventive Services Task Force, 2019b), so some schools implement these evidence-based programs as Tier I MBH services. To effectively implement Tier I interventions, the National Center for School Mental Health (NCSMH, 2020a) developed recommended best practices districts and schools can implement to improve the mental health promotion services they offer.

National Center for School Mental Health Domains

NCSMH (2020a) recommends districts to implement interventions within the MTSS Tier I mental health promotion domain, including the best practices of: 1) assessing and improving school climate; 2) assessing and improving teacher and staff well-being; 3) setting school-wide expectations about positive behaviors; 4) implementing school-wide positive reinforcement systems that promote positive behaviors; 5) preventing and addressing conflict; 6) reducing exclusionary discipline practices; 7) increasing mental health literacy for all students; 8) increasing social and emotional learning opportunities [for students, parents, and educators]; 9) determining whether services and supports are evidence-informed; 10) ensuring Tier I supports and services fit school needs; 11) ensuring adequate resource capacity; 12) supporting the implementation of mental health promotion services; and, 13) monitoring fidelity of mental health promotion services and supports across all three MTSS tiers.

Additionally, NCSMH (2020c; 2020d) recommends the following best practices related to sustaining community partnerships that address mental health promotion needs through developing: 1) multidisciplinary teams; 2) youth and family partnerships; 3) [system] efficiency; 4) meeting structures and processes; 5) delineated roles and responsibilities; 6) effective referral processes to school services; 7) effective community service referral processes; 8) data-based decision [protocols] for student interventions; and, 9) data sharing [policies and practices].

Finally, NSCMH (2020d) recommends a handful of best practices to help school districts to acquire adequate resources for mental health promotion services and supports, including to: 1) use multiple and diverse funding resource to support a continuum of care; 2) coordinate funding streams; 3) ensure funding and resources align to support a full continuum of care; 4) establish a process to develop, evaluate, and update

financial planning; 5) leverage funding and resources to attract potential contributors; 6) have strategies in place to maintain staff; and, 7) maximize the expertise and resources of school mental health partners.

Literature Gaps

This study intends to identify research-to-practice gaps in a large Midwestern metropolitan area by comparing the mental health promotion services and supports used by twelve public K-12 schools districts to three evidence-informed domains defined by the National Center for School Mental Health (NCSMH). MTSS will provide a framework to compare these system-level practices.

Purpose

The purpose of this research is twofold: 1) to address a community-driven need to identify mental health promotion services and supports that target the mental health needs of K-12 students in a large Midwestern metropolitan area, and 2) to compare the identified mental health promotion services and supports to evidence-informed domains defined by the National Center for School Mental Health (NCSMH): interventions, community partnerships, and resources.

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Research Questions

1. What resources do school districts use to provide mental health promotion services and supports in K-12 public schools in a large Midwestern metropolitan area?
2. What interventions do K-12 public school districts implement to provide mental health promotion services and supports to students?
3. What community partnerships do districts utilize to provide mental health promotion services and supports to students?

Participants

Representatives from twelve school districts in a large Midwestern metropolitan area participated. Participants were recruited based on integrated knowledge translation (Bowen & Graham, 2013; Graham et al., 2006) and Gould and Fernandez's (1989) concept of knowledge brokerage, which has been used to study

research-to-practice gaps in K-12 contexts (Neal et al., 2015; Neal et al., 2019; Jusinski, 2021). Each district representative(s) was/were identified by their district superintendent who was affiliated with an educational collaborative organization in a large Midwestern metropolitan area.

Inclusion/Exclusion Criteria

Inclusion criteria for this study included if an individual was identified by their school district superintendent as a MBH expert in their respective school district. Exclusion criteria for this study included if a representative from a school district affiliated with the collaborate educational organization did not give permission for the PI to use their district's data for a secondary purpose – i.e., this case study.

Sample Size

Twelve school districts and twenty six total individuals participated. The total number of individuals who represented their school district is displayed below (Table 1). As noted in Table 1, five districts only had one individual who participated in both the survey and interview, but seven districts had different or multiple individuals participate in the survey and interview. Descriptions for the total number of students, schools, full time employee (FTE) staff, race/ethnicity of students, median household income of students, and number of students who qualify for free and/or reduced lunch is included in Table 2.

District	A	B	C	D	E	F	G	H	I	J	K	L
Number of Survey Participants	1	1	1	1	1	1	1	1	1	1	1	1
Number of Interview Participants	2	4	1	5	2	1	2	1	1	3	1	1
Total Number of District Participants	2	4	1	5	3	1	2	1	2	3	1	1
Total Number of Participants	**26**											

Table 1: Total sample size for Case Study[1]. *District participants are any individuals who participated in either the survey or interview processes. Some district representatives participated in both the survey and interview and are represented accordingly*.

District	Total Students*	Primary Schools (PK-8)**	Secondary Schools (9-12)**	Total Schools**	Total FTE Staff *	Race/Ethnicity of Students* *WT=White* *HS= Hispanic* *BLK/AA= Black or African American* *ASN= Asian* *AI/AN=American Indian/Alaskan Native* *NH/PI= Native Hawaiian or Other Pacific Islander* *2+= Two or More Races*							Median Household Income of Students**	Students who qualify for free/reduced lunch*
n = 12	138,844	239	32	271	Elementary n = 5346	*WT*	*HS*	*BLK/ AA*	*ASN*	*AI/ AN*	*NH/ PI*	*2+*	$85,362	52,896
					Secondary n = 2349	51%	21%	12%	5%	1%	<1%	5%		

Table 2: Aggregated demographic information totals from the twelve participating school districts.

*Information from Nebraska Education Profile (2022), **Information from National Center for Education Statistics (2022)

Project Timeline

In the summer of 2021, the director of a collaborative educational organization conducted one-on-one conversations with the twelve school district superintendents in a large Midwestern metropolitan area. Each superintendent independently determined that student mental health was a priority issue for their school district in the 2021-2022 academic year, in part because of the stressors exacerbated by the COVID-19 pandemic. In late summer of 2021, the principal investigator (PI) joined the collaborative educational organization as a consultant and conducted a literature review to inform the creation of a survey and interview protocol with the intent to produce a wide-lens, community snapshot of the mental health promotion, early intervention, and treatment services provided to K-12 students in the large Midwestern metropolitan area. The survey and interview protocol also included input from a local pediatric healthcare system. In August 2021, a representative from the collaborative educational organization emailed the survey to district representatives from each participating school district with a request to complete the survey. In September 2021, a minimum of one representative from each participating school district completed the survey. From September to October 2021, the PI conducted interviews with representatives – i.e. knowledge brokers (Gould & Fernandez, 1989; Neal et al., 2015) – from each participating district to acquire additional understanding about the resources districts use to provide mental health promotion, early intervention, treatment services to students. In addition, the PI inquired about the interventions districts use to help students acquire needed services and the community partnerships each district uses to address student mental health needs. In December 2021, the PI presented a preliminary, practical summary of the results to a collaborative educational work group, which included representatives from each participating school district.

Methodology

The PI designed the case study using a triangulation mixed methods design to answer the research questions. This study methodology involved the PI simultaneously collecting survey and interview data, giving equal weight to each (Sheperis et al., 2010; Creswell & Clark, 2018). As seen in Table 3, the survey was designed to collect data within the resource and intervention domains and the interview protocol was designed to collect data within the community partnership domain. Furthermore, one survey question was included on the interview protocol to add qualitative depth within the resource domain. The PI created the survey and collected the survey data in Qualtrics. The survey data was then exported to Microsoft Excel and coded (Syed and Nelson, 2015), de-identifying each participant's data with a random letter assignment. In addition to the survey, the PI developed an interview protocol with the intent to provide depth and detail to each research question (Teddlie, C. & Tashakkori, A., 2009). During each interview, the PI took field notes (Charmaz, 2006), audio recorded each interview, and exported audio recordings to the transcription software platform, Otter.ai.

Next, two members of the research team reviewed each transcript for accuracy and two team members used selective coding (Strauss and Corbin, 1994) and independently conducted line-by-line coding to develop categories in the qualitative data set. Next, two members of the research team reviewed the independently developed categories and used theoretical coding (Charmaz, 2006) to integrate the identified categories into emergent themes.

Case Study$_1$ utilizes survey and interview data from representatives of twelve school districts in a large Midwestern metropolitan area within three evidence-informed domains defined by the National Center for School Mental Health (2020a; 2020d; 2020e) which identify resources that drive mental health promotion services, the interventions districts implement to provide mental health promotion services, and the community partnerships districts utilize to provide mental health promotion services. The University of Nebraska Medical Center's Office of Regulatory Affairs (ORA) determined this Case Study did not constitute human subject research as defined at 45CFR46.102.

Quantitative measure: The research team identified six questions out of the survey (Appendix C) and compared them to the appropriate funding/sustainability, Tier I interventions, and teaming domains defined by NCSMH. The following survey questions related to mental health promotion services and supports were analyzed:

Resources (NCSMH Funding & Sustainability)

- SQ15 (Service unit funding): Does a Nebraska Educational Service Unit or Iowa Area Education Agency support your district to manage student mental health issues in your schools? If yes - describe how. *The three available responses were: (0) no, (1) yes, or (2) unsure.*
- SQ16 (State funding): Does your district receive specific state funding to address student mental health issues? If yes - please describe. *The three available responses were: (0) no, (1) yes, or (2) unsure.*
- SQ17 (Federal funding): Does your district receive specific federal funding to address student mental health issues? If yes - please describe. *The three available responses were: (0) no, (1) yes, or (2) unsure.*
- SQ18 (Private funding): Does your district receive specific private funding to address student mental health issues? If yes - please describe. *The three available responses were: (0) no, (1) yes, or (2) unsure.*

Tier I Interventions (NCSMH Mental Health Promotion Services & Supports)

- SQ3 (Impact of MH on Learning Environment): How much do student mental health issues impact the learning environment? *The scale range provided to the participants ranged from 0-100, zero defined as "no impact at all" and one hundred defined as "learning environment is severely impacted by student mental health issues."*
- SQ13 (SEL model): Does your district use a specific strategy or model (e.g., mindfulness or social emotional learning curriculum) that promotes mental well-being? If yes, please describe.

Qualitative measure: The research team identified four questions out of the interview protocol (Appendix D) to provide depth to the quantitative comparison of participants' survey responses to the appropriate Tier I, teaming, and funding/sustainability domains defined by NCSMH. The following questions from the interview protocol were analyzed:

Resources (NSCMH Funding & Sustainability)

- IQ1 (MH leadership): Who is responsible for overseeing mental health initiatives for your school/district?

Community Partnerships (NCSMH Teaming)

- IQ3 (Community partnerships): In your survey response, you answered that your district works with agencies A, B, C... Please describe how you work with these agencies.
- IQ3a (Effective partnerships): Are there any of these partnerships that are more helpful or successful than others? Are there any changes that would make the relationships more effective?
- IQ3b (Perceived system effectiveness): Do you feel the "system" works for you and your students? If not – why? If so, what is working?

See Table 3 for a description of the three evidence-informed domains related to MTSS Tier I, the types of data collected, and data analysis used in Case Study$_1$.

Triangulation Mixed Methods Case Study		**Data**		**Statistical Methods**
NCSMH Domains		Survey Questions (QUAN)	Interview Questions (QUAL)	Data Analysis
Case Study$_1$ *MTSS Tier I*	Resources *(Funding & Sustainability)*	Service unit funding, State funding, Federal funding, Private funding	MH leadership	QUAN: A measure of dispersion and histograms are used to provide essential information about one continuous variable (Impact of MH on Learning Environment) and five categorical variables (SEL model, Service unit funding, State funding, Federal funding, Private funding). QUAL: Thematic analysis for four qualitative variables (MH leadership, Community partnerships, Effective partnerships, Perceived system effectiveness)
	Interventions (*Mental Health Promotion Services & Supports)*	Impact of MH on Learning Environment, SEL model	-	
	Community Partnerships *(Teaming)*	-	Community partnerships, Effective partnerships, Perceived system effectiveness	

Table 3 Methodology used in Case Study$_1$

Data Analysis

Quantitative Analysis: A measure of dispersion and histograms were created to provide essential information about one continuous variable (Impact of MH on learning environment) and five categorical variables (SEL model, Service unit funding, State funding, Federal funding, Private funding).

Qualitative Analysis: Thematic analysis was conducted to explore four qualitative variables (MH leadership, Community partnerships, Effective partnerships, Perceived system effectiveness).

Results

In the following section, quantitative and qualitative results from $Study_1$ are utilized within the appropriate NCSMH (2020a; 2020c-d) domains, which include: 1) funding & sustainability, 2) Tier I mental health promotion services & supports, and 3) teaming. First, $Study_1$ results are compared to the appropriate NSCMH (2020d) evidence-informed recommendations to help school districts acquire adequate financial resources for mental health promotion services and supports. Next, quantitative and qualitative results from $Study_1$ are compared to the appropriate NCSMH (2020a) *MTSS Tier I mental health promotion* intervention recommendations. Finally, $Study_1$ results are compared to the appropriate NCSMH (2020c) evidence-informed recommendations related to "teaming" which includes developing practices that school districts use to sustain community partnerships to address their mental health promotion needs.

Resources (NCSMH Funding & Sustainability)

The following results address the research question, "*What resources do K-12 public schools use to provide mental health promotion services and supports to students?"* Descriptive statistics for four quantitative, categorical variables measure participants reports related to NCSMH's (2020d) funding & sustainability domain. See Figures 4-7 for histograms displaying participant reports that describe their funding from service unit, state, federal, and private sources. As displayed in Figure 4, eight participating districts report receiving funds from local educational service units, although four participating districts do not. Examples of the support participants report receiving include collaboration with student services administration, the provision of various professional development trainings, and mental health consultation. Figure 5 displays that eight participants reported receiving funds from state sources, one participating district reported not receiving any state funds, and three district

representatives were unsure if their district receives state funds. Examples of the support participants report receiving from state entities include Title IV funds and Dropout Recovery programming. Furthermore, Figure 6 displays that seven district representatives reported their district receives federal funds, two districts reported not receiving any federal funds, and three districts were unsure if their district receives federal funds. Examples of the support participants report receiving from federal entities include Elementary and Secondary School Emergency Relief (ESSER) funds and a School Climate Transformation Grant from the US Department of Education. Finally, Figure 7 displays that eight district representatives reported their district receives funding from private sources, three districts reported not receiving any private funding, and one district representative reported being unsure if their district receives funds from private sources. Examples of the support participants report receiving from private entities include private grants to support suicide prevention efforts and help uninsured student to receive needed services.

Service Unit, State, Federal, and Private Funding Sources for participating Public K-12 School Districts

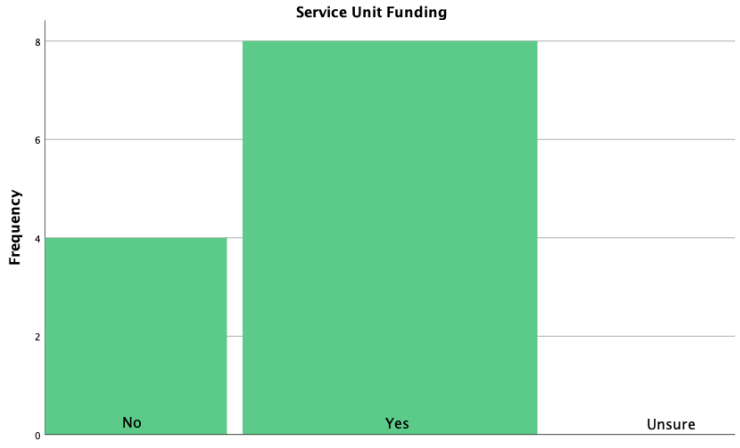

Figure 4: Participants' reported use of educational service unit funding

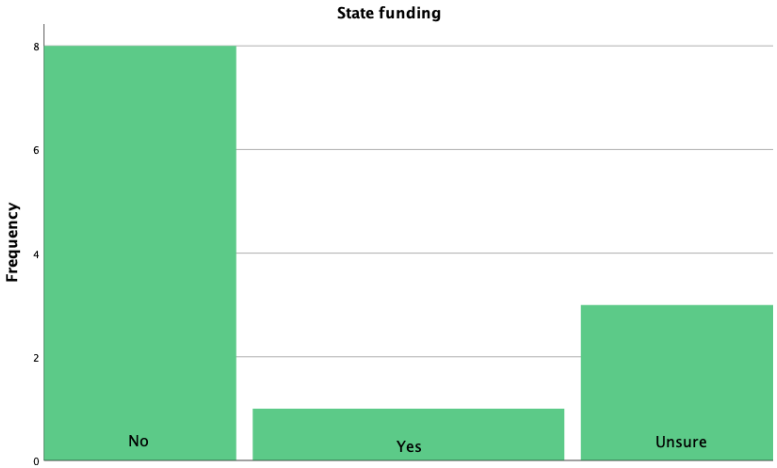

Figure 5: Participants' reported use of state funding

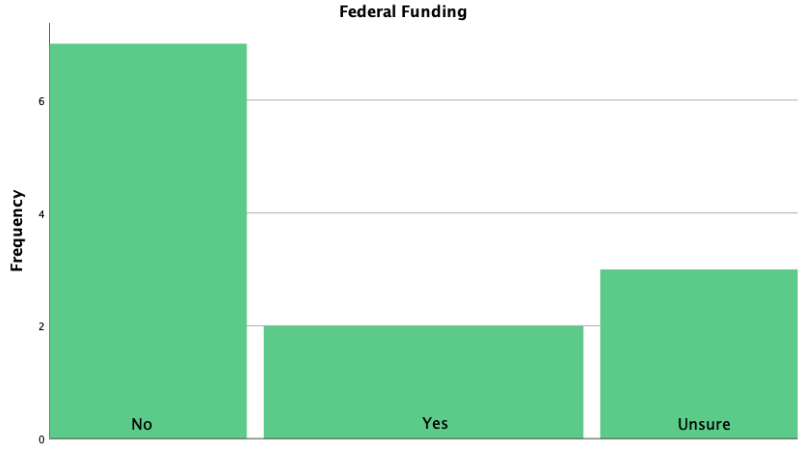

Figure 6: Participants' reported use of federal funding

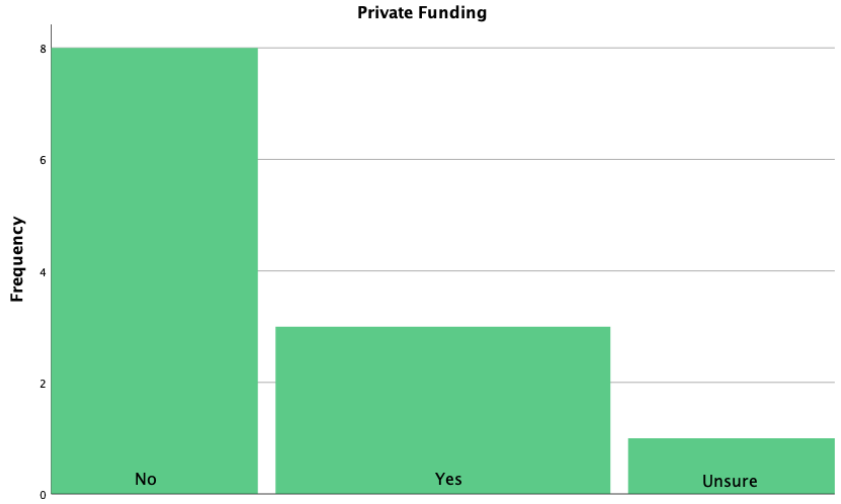

Figure 7: Participants' reported use of private funding

In addition, one qualitative variable (MH leadership) was analyzed to provide insight into the resources participants use to promote positive mental health in their respective districts.

MH leadership

Within districts, participants reported multiple tiers of individuals having responsibility to adequately address student mental health needs, but that student mental health needs are generally greater than the participating districts' service capacities. For example, participants reported having a variety of tiered responses – e.g., data gathering and outcome tracking technology, screening practices, emergency protocols - depending on the severity of students' situations and within each tier, specific protocols are used for participating districts to follow. In alignment with NCSMH's (2020d) funding and sustainability domain, one representative highlighted a common interview theme by listing a diverse set of stakeholders who are involved in their district's decision-making process. Representatives from K-12 school districts engage in various ways within the communities their schools operate within. The quote below describes an informal but intimate link some district representatives develop with leaders in other sectors of their communities, including but not limited to representatives from law enforcement, medical providers, lawyers, business owners, and other community leaders. One participant stated:

"So there's formalized plans that when we meet together as a community, group, administrators, teachers, family, community, community members, even business partners, will identify areas of concern." (District E Representative)

Tier I Interventions (NCSMH Mental Health Promotion Services & Supports)

The following results address the research question, "*What interventions do school districts implement to provide mental health promotion services and supports in K-12 public schools in a large Midwestern metropolitan area?*" The range for one quantitative, continuous variable (Impact of MH on learning environment) and a histogram for one categorical variable (SEL model) measure participants reports related to NCSMH's (2020a) mental health promotion services and supports domain. See Figure 2 for a measure of how much participating district representatives reported MH impacting their learning environment for both students and educators. Six districts reported student MH impact scores of less than 50, demonstrating a lower perceived student need for mental health promotion services

and supports. The other six districts reported student MH impact scores of 50 or more, demonstrating a higher perceived student need for mental health promotion services and supports. In addition, five districts reported educator MH impact scores lower than 50, demonstrating a lower perceived need for educators to engage in mental health promotion services and supports. Finally, seven districts reported educator MH impact scores 50 or higher, demonstrating a higher perceived need for educators to engage in MH promotion services and supports. As seen in Figure 2, district representatives reported a range of 10 to 93 for MH impact for educators and a range of 19 to 91 for MH impact for students, respectively. The variety of responses from participants included, highlighting an important mediating factor for districts to follow – or not follow – NCSMH (2020a) mental health promotion services & supports domain.

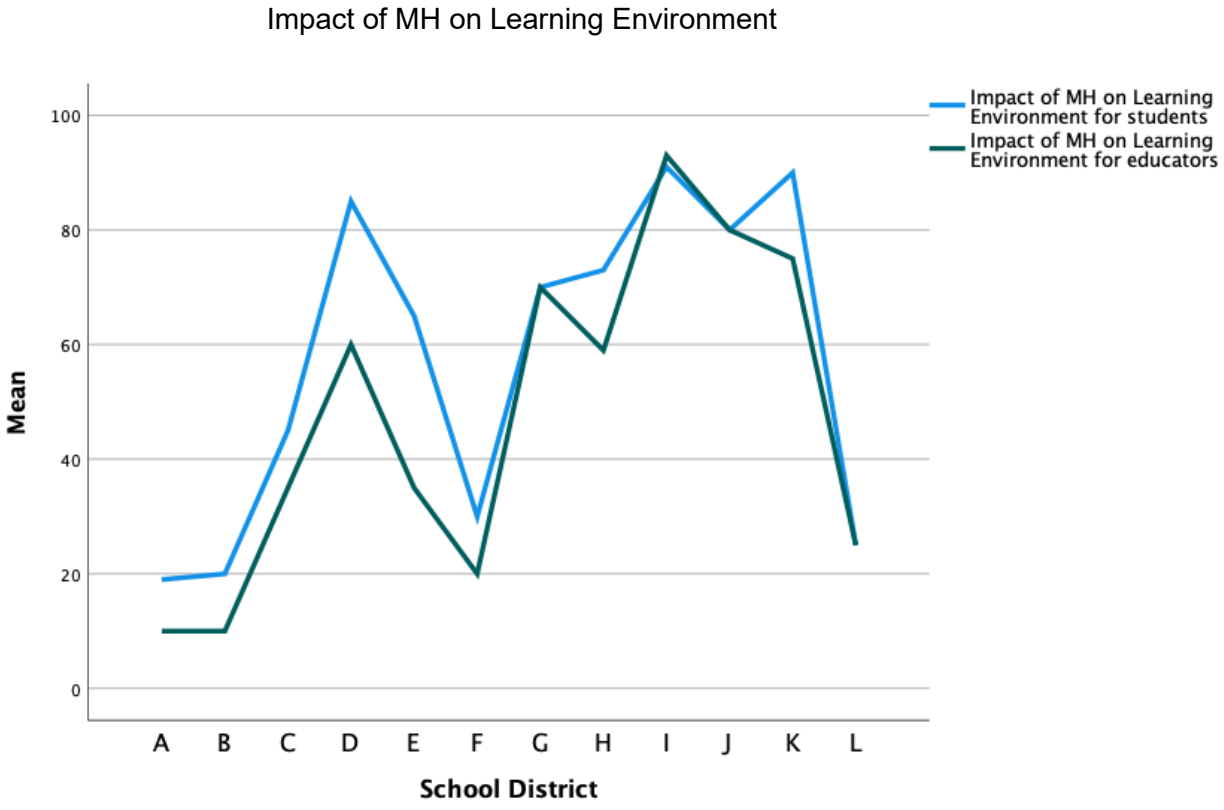

Figure 2: How much participating district representatives reported MH impacts the learning environment for students and educators

See below for participants responses to the question, ”Does your district use a specific strategy or model - e.g., mindfulness or social emotional learning curriculum - that promotes mental well-being?” Figure 3 displays a

histogram which notes most - 10/12 - of the participating districts report already using a SEL model, a NCSMH (2020a) Tier I recommendation. Examples of SEL curricula participants reported using include Second Step, Caring School Communities, Zones of Regulation, Sanford Harmony, Choose Love, and Rachel's Challenge.

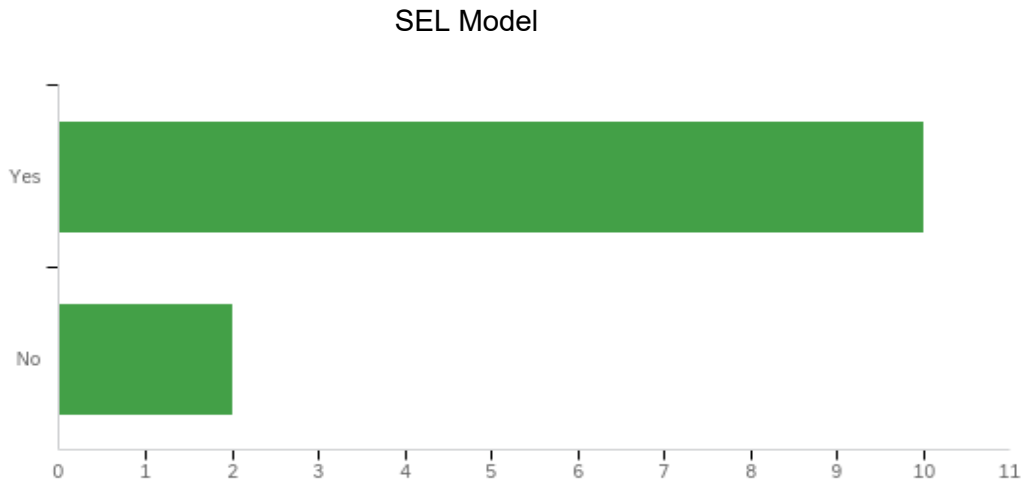

Figure 3: Participant use of a specific strategy or model - e.g., mindfulness or social emotional learning curriculum - that promotes mental well-being

Community Partnerships (NCSMH Teaming)

The following results address the research question, "*What community partnerships do districts utilize to provide mental health promotion services and supports to students?*" Three qualitative areas - Community partnerships, Effective partnerships, Perceived system effectiveness - provide depth to participants reports related to NCSMH's (2020c) teaming domain.

Community partnerships, effective partnerships, perceived system effectiveness

According to district representatives, community partners provide diverse services critical to their districts' success. In alignment with NCSMH (2020c) teaming domain, participants report local community partnerships which provide professional development trainings, in addition to both on-site and off-site mental health promotion services and supports. Participants generally defined effective partnerships as being *responsive* to the immediate and dynamic needs of their districts. In other words,

all participants reported the importance of their community partners to respond in a timely manner and provide various professional services, including professional development trainings to their educators and students related to mental health, resilience, and trauma-informed care; on-call consultant services to support the MBH needs of their students and families; and integrating district input into hiring processes to match MBH professionals to specific district needs. In addition, districts representatives overwhelmingly report that establishing formal partnerships between their districts and local community partners – e.g., executing a Memorandum Of Understanding (MOU) - is key to improving effective communication patterns between educational and medical systems. For example, most district representatives that their district has developed working relationships with various community partners over time to provide 1) professional development trainings – e.g., trauma informed care trainings - to their educators, and 2) mental health services – e.g., on-site and/or off-site therapy - to their students. Finally, a minority of $Study_1$ participants reported that it is most valuable to their districts when local community partners engage with their districts' strategic planning process over time and participate in open communication with educational administrators when issues arise – both of which align with NCSMH (2020c) teaming domain.

Many public K-12 school districts create and update strategic plans to guide their work. Based on participant reports, the most effective community partners engage with K-12 strategic planning processes. As demonstrated in the quotation below, public K-12 school board meetings are explicitly open to input from community stakeholders. Community partners who participate in school board meetings and provide input into K-12 decision making processes make the educational system more effective, especially as their input relates to the development of MBH policies. The examples most often provided by research participants includes the on-going need to address the stigma of mental illness in some communities, the systematic communication struggles between educational and medical systems when students experience mental health crises, and the integration of trauma-informed care into the K-12 context. One participant described how strategic planning is handled in their district:

"When [our district's] strategic plan came about, that's when it gave us [i.e., district leaders] that open door to say we need to explore some outside partnerships [to address student MBH needs]… When we first started with those partnerships, the [community partners] would actually come into our building and talk to a small group of us about… what the program [offered by the community partner] is… [and] what you can expect from [the community partner]. [For example,] this is what [the community partner] needs from [the district]. Here is [the community partner's] agreements, this is when [the community partner regularly] meets, this is how [the district] can get a hold of [the community partner] if [the district] needs anything… it's very strategic" (District E Representative)

As displayed in the quotation below, community organizations are mission driven and employ MBH specialists to provide services to particular clientele. In the context of K-12 education, representatives from community partners may provide specialized, preventative services to students and their families, including but not limited to economic, housing or food security, medical, legal, domestic violence, or trauma-informed MBH supports.

> *"All partnerships are unique and important. [It is critical for schools to] leverage what [community partners] are good at." (District C Representative)*

Discussion

What Study$_1$ Adds to Literature

Case Study$_1$ fills an important research-to-practice gap in the national literature by highlighting how public K-12 schools districts in a large Midwestern metropolitan area employ mental health promotion best practices and approach strategic planning activities between educational, medical, and community stakeholders. K-12 school districts across the US are studying the diverse continuum of mental health promotion practices currently used to improve school climate (Albright et al., 2022); utilize peer led strategies (Goldstein & Shrikhande, 2022); implement mental health literacy programming (Rosenberg et al., 2022) – e.g., Classroom WISE (Gotham et al., 2022); integrate trauma-responsive content within early career educator training (Curry et al., 2022; Villaverde et al., 2022); use evidence-informed SEL strategies – e.g., Feel Your Best Self (Chafoules et al., 2022), PBiS (Pohlman & Flammini, 2022), school-based prevention programming (Henderson & Hernandez, 2022) and animation (Bartsch et al., 2022) to encourage positive student mental health; promote equity through mindfulness-based programming (Murray & Mills-Brantley, 2022); implement restorative practices with educators and students (McGill et al., 2022), encourage educator well-being (Zeller, 2022); use data-driven readiness interventions (Ferguson et al., 2022); and implement system wide capacity-building – e.g., SAMHSA funded Project AWARE (Gonzalez et al., 2022). Examples of comprehensive mental health systems exist nationwide, but these complex systems require strategic collaboration by educational and healthcare systems over time (Connors et al., 2020; Marraccini et al., 2019) and Case Study$_1$ provides an example of how public K-12 school districts in a large Midwestern metropolitan area approach mental health promotion practices in the context of resource scarcity and the social stigma of mental illness.

Emergent Themes

Generally, Case Study$_1$ participants reported alignment with NCSMH (2020a; 2020c; 2020d) domains regarding their mental health promotion services and supports, teaming, and funding and sustainability activities, but there are areas where participating districts can improve their use of evidence-informed mental health promotion activities. These results are similar to other studies which measure the implementation of specific SEL curricula (Hemmeter et al., 2022) and note the common barriers schools experience when integrating SEL alongside academic curricula (Lahey & Monahan, 2022). For example, data-driven decision making processes often precede district acquisition of diverse funding streams that support mental health promotion activities (NCSMH, 2020d) and districts across the US face the decision to use their limited resources to fund preventative MBH programming (Evans et al., 2015) instead of enhancing other district priorities. Some participating districts reported low-to-moderate perceived need to change current mental health promotion practices and that the current services available to their districts adequately address student MBH needs. Other participants reported an increase of baseline anxiety for students and educators during the 2020-2021 academic year and that the current student MH needs far exceed district resource capacities. These perceived issues and services needs are also seen at a national level (US Surgeon General, 2021; US Department of Education, 2021). Finally, some district representatives believe more mental health promotion services and supports – e.g., trauma-informed professional development trainings – are required to sufficiently address student MBH needs, providing support to the national movement which promotes the values of trauma informed schools (Overstreet & Chafouleas, 2016).

The majority of participants reported receiving funds from diverse sources – e.g., educational service units, state, federal, and private entities – to enhance mental health promotion services and supports via implementing SEL curricula, which directly aligns with NCSMH (2020a; 2020d) Tier I intervention and funding/sustainability domains. Notwithstanding, some participating districts reported a struggle to acquire funding from diverse sources, which is especially challenging for districts with limited resources (US Surgeon General, 2021; US Department of Education, 2021). Participants also highlighted the importance of establishing formal partnerships with a diverse set of local community service providers as being critical to their districts' success to adequately address student MH need: both activities align with NCSMH's (2020a; 2020c) Tier I intervention and teaming domains and support on-going efforts to improve the partnerships between schools and healthcare systems (Connors et al., 2020; Whitaker et al., 2018; Garbacz et al., 2021; Livingood et al., 2007).

Recommendations

1. *Professional development is needed to improve student mental health outcomes.*

   Participants highlighted the importance of on-going professional development that is relevant and useful for the teachers, staff, and school administration teams that serve K-12 students. Similar to national trends, participants reported that many educators, students, and families still believe mental illness carries a stigma (Radez et al., 2020; Bynum & Sukhera, 2021; Clark et al., 2013) and the majority of participants desire trauma-informed trainings to be offered to their educators to enhance the learning environment in K-12 schools (von der Embse et al., 2019; Overstreet, S., & Chafouleas, S. M., 2016; Kameg & Fradkin, 2020; Community Preventive Services Task Force, 2019a & 2019b; Berger, 2019).

2. *Tier I mental health services and supports (e.g., Social Emotional Learning curricula) complement Tier II (early intervention services and supports) and Tier III (treatment services and supports) efforts.*

   Participants described the importance of K-12 school districts to acquire sufficient resources to effectively integrate Tier I services and supports into their existing Tier II and III interventions. The NCSMH (2020a-e) domains were explicitly created to support districts to develop comprehensive school mental health systems that sustainably support the MBH needs of K-12 students and $Study_1$ results confirm that not all schools have adequate resources and community buy-in to implement mental health promotion activities.

Limitations

There are limitations to the generalizability of Case $Study_1$ results, which utilized pre-existing data that was initially collected for a different purpose – i.e., a community-driven need to identify local mental health promotion practices. Next, Case $Study_1$ results only focus on the perspectives of public K-12 school district representatives. The study targeted district representatives who were identified by their respective superintendents as MBH experts and do not include the perspectives of teachers, students, and/or families, all of whom are inevitably involved in school mental health promotion activities. Finally, Case $Study_1$ was only designed to identify mental health promotion practices reported by participants and compare the reported practices to three evidence-informed domains – i.e., the study was not designed to assess the effectiveness of participating districts' MTSS implementation activities or dissemination of evidence-based practices (NCSMH SMH-QA, 2021).

Additional Research Needed

The majority of participants are following approximately half NCSMH (2020a; 2020c; 2020d) recommendations in the following domains: 1) mental health promotion services and support interventions; 2) teaming; 3) funding and sustainability. Nevertheless, there is an on-going need in K-12 public education to ensure sustainable funding streams that increase the prevalence of trauma-informed schools and organizational capacity for mental health promotion efforts (US Surgeon General, 2021; US Department of Education, 2021). Future studies are indicated to identify research-to-practice gaps in other geographic regions to: 1) document the resources, interventions, and community partnerships districts utilize in various local contexts, and 2) assess the perceptions of district leadership as they relate to mental health promotion efforts in K-12 schools (NCSMH, 2022)

Chapter 2 – MTSS Tier II

Introduction

Nationwide, United States K-12 public school systems have a variety of hired personnel to provide mental health services and supports to students (Shelton and Owens, 2021). In addition to paid personnel, school districts create a constellation of useful services through partnerships with mental healthcare providers outside of the educational system; community health centers which provide a spectrum of medical, dental, and behavioral services; and healthcare systems to serve the spectrum of student mental health needs (Greig et al., 2019; Kranz et al., 2020). Although public health-informed legislation like the Mental Health and Addiction Parity Act has improved the access and utilization of mental healthcare services (Mulvaney-Day et al., 2019), the COVID-19 pandemic has exacerbated the barriers students face in order to access needed mental healthcare services, including but not limited to economic and social barriers (DHHS Office of Disease Prevention and Health Promotion, 2021). Still, there are evidence-based programming and best practices currently available to alleviate student symptoms (Community Preventive Services Task Force, 2019a & 2019b) and a nationwide increase in student mental health needs have spotlighted a systematic need for US education systems to establish guidance for school districts to implement evidence-informed social, emotional, behavioral, and mental health interventions (Bateman and Yell, 2019).

Whether or not a child establishes developmentally appropriate competencies predicts their protective and risk factors in later stages of development (National Research Council and Institute of Medicine, 2000). In the context of school mental health, developmental milestones and competencies are observed by educators when children enter school grounds and classrooms. Examples of developmental competencies include a child's ability to demonstrate secure attachment, emotional regulation, executive functioning, and appropriate conduct (O'Connell, 2009). Furthermore, evidence-based programming designed to intervene with social, emotional, and behavioral outcomes are available to public K-12 school districts, but not all districts systematically implement programming with the same vigor or fidelity (US Department of Education, 2021). Depending on local context, some districts track students' educational and developmental outcomes with the understanding that social determinants of health – e.g., economic stability; neighborhood and built environment; social and community context; educational access and quality; and healthcare access and quality (Healthy People 2030, 2022c) – impact their students' ability to achieve positive mental health and academic outcomes.

Even before the COVID-19 pandemic, many districts struggled to justify spending money that promotes positive mental health and prevents disruptive student mental health issues, sometimes called "invisible illnesses" (SAMHSA, 2019b). In addition, paying for school-based mental healthcare services is a barrier for many school districts (Maag and Katsiyannis, 2010), and many schools still struggle to employ enough clinical

counselors, social workers, and psychologists to address their students' mental health needs (Healthy People 2030, 2022a). To address these issues, Healthy People 2030 (2022a) includes a goal to "increase the proportion of public schools with a counselor, social worker, and psychologist." At a state level, Nebraska school districts are providing an aggregation of mental and behavioral health (MBH) supports and referrals to evidence-based services – e.g. crisis/emergency response, inpatient hospitalization, outpatient and rehabilitation services (DHHS, 2021) – to combat disruptive student mental health issues (NE DHHS Div. of BH, 2021), but mental health service disparities still exist for many of Nebraska's most vulnerable student populations (NE YRBS, 2018) and comprehensive systems of care need to be developed and supported in sustainable ways (Schwean & Rodger, 2013). The state of Nebraska has 820 total public K-12 schools, 244 total school districts (NE Dept of Ed, 2021), and is divided into six management regions (Appendix A) that provide MBH services to students and families in need (NE DHHS Div. of BH, 2021). In summary, only some school districts are able to provide mental health early intervention services and supports to their students.

To measure outcomes and implement evidence-informed practices, many public K-12 schools in the US utilize Multi-Tiered Systems of Support (MTSS, Figure 1), a tiered intervention framework. Case Study$_2$ uses MTSS to frame the early intervention services and supports participating districts utilize.

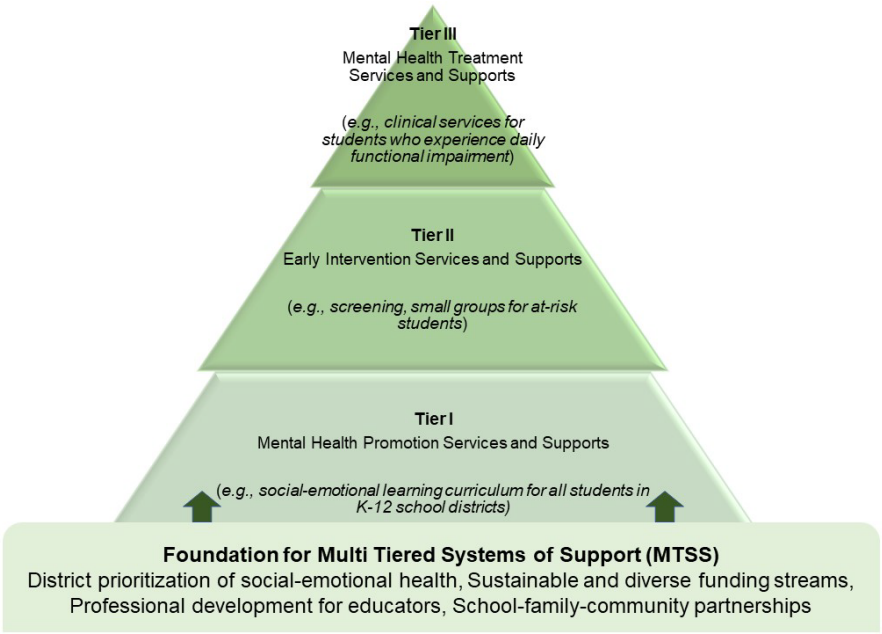

Figure 1: Multi-Tiered Systems of Support Intervention Framework (Adapted from Hoover et al., 2019)

For approximately 15% of school-age youth, universal MBH prevention services and supports are not adequate (Asby et al., 2020). In these cases, districts need to implement early intervention services and supports for students who present with increased social, emotional, and behavioral needs (US Department of Education, 2021). In other words, some students develop functional impairments and mental health struggles which require a higher level of care (Hoover et al., 2019). Examples of MTSS Tier II services include small group interventions related to specific needs and/or individual risk factors – e.g., social skill groups; student groups to teach symptom management techniques to students with sub-clinical anxiety, depression, grief, or emotional trauma (Asby et al., 2020) – and evidence-informed service supports – e.g., *Check In Check Out; Check & Connect; Check, Connect, and Expect* (US Department of Education, 2021).

Guided by the determinants of health (Healthy People 2030, 2022c), early intervention services and supports are congruent with the Institute of Medicine's (IOM) concepts of selective and indicated prevention interventions which target specific sub-populations of the general student population (O'Connell, 2009). Examples of early interventions include activities that optimize positive functioning for students, including the development of community-driven cultural programs and collaborative efforts between schools and local community entities which enhance students' abilities to develop healthy relationships and lifestyle choices - inside and outside of school (Miles et al., 2010). In addition, examples of focused illness prevention interventions include "small group interventions… or low-intensity classroom-based supports" (Hoover et al., 2019) which target the biological, psychological, social, or environmental risk factors students experience, including but not limited to children who experience parental divorce, abuse, substance use or the death of a family member (O'Connell, 2009). Focused prevention interventions may also target students who are displaying detectable, but sub-clinical symptoms of MBH disorders which indicate brief individualized interventions or mentoring services (O'Connell, 2009; Hoover et al., 2019).

Screening practices and Positive Behavior Interventions (PBiS) are included as examples of early intervention services and supports. For example, many districts implement a variety of formal and informal functional behavioral assessments and create individualized support plans to address their students' academic, behavioral, and mental health needs (Cook et al., 2015; Miles et al., 2010). At times, early assessment and intervention leads to the identification of MBH symptoms which necessitate Tier III services – i.e., clinical treatment by MBH specialists (Barret et al., 2013). Furthermore, PBiS interventions highlight asset-based activities that encourage students to develop culturally-meaningful goals and enhance the universal school-based health promotion concepts of inclusion and well-being in school communities (Miles et al., 2010). Some districts also choose to implement targeted school-based cognitive behavioral therapy (CBT) programs to reduce both depression and anxiety symptoms in school-age youth identified as being at an increased risk to develop MBH issues (Community Preventive Services Task Force, 2019a). Targeted CBT programs are

appropriate for students who are identified as having increased social emotional needs and are designed to "help [at-risk] students develop strategies to solve problems, regulate emotions, and establish helpful patterns of thought and behavior" (Community Preventive Services Task Force, 2019a).

National Center for School Mental Health Domains

NCSMH (2020b) recommends districts to follow the MTSS Tier II early intervention best practices of: 1) determining whether or not services are evidence-informed; 2) matching treatment services and supports to the unique strengths, needs, and cultural/linguistic considerations of students and families; 3) ensuring the implementation of treatment services and supports are supported by adequate resource capacity; 4) supporting educator training, professional development, and implementation; 5) monitoring implementation fidelity; 6) creating Specific, Measurable, Achievable, Relevant, and Time-bound (SMART) intervention goals; 7) monitoring individual student progress across tiers; and 8) implementing a systematic protocol for emotional and behavioral crises (NCSMH, 2020b).

Furthermore, NCSMH (2020c; 2020d) recommends the following best practices related to the importance of districts to sustain community partnerships that address early intervention services and supports through developing: 1) multidisciplinary teams; 2) youth and family partnerships; 3) [system] efficiency; 4) meeting structures and processes; 5) delineated roles and responsibilities; 6) effective referral processes to school services; 7) effective community service referral processes; 8) data-based decision [protocols] for student interventions; and, 9) data sharing [policies and practices].

To ensure school efforts are sustainable, NSCMH (2020d) also recommends a handful of best practices to help school districts acquire adequate resources for early intervention services and supports, including to: 1) use multiple and diverse funding resource to support a continuum of care; 2) coordinate funding streams; 3) ensure funding and resources align to support a full continuum of care; 4) establish a process to develop, evaluate, and update financial planning; 5) leverage funding and resources to attract potential contributors; 6) have strategies in place to maintain staff; and, 7) maximize the expertise and resources of school mental health partners.

Literature Gaps

This study intends to identify research-to-practice gaps in a large Midwestern metropolitan area by comparing the early intervention services and supports used by twelve public K-12 schools districts to three evidence-informed domains defined by the National Center for School Mental Health (NCSMH). MTSS will provide a framework to compare these system-level practices.

Purpose

The purpose of this research is twofold: 1) to address a community-driven need to identify early intervention services and supports that target the mental health needs of K-12 students in a large Midwestern metropolitan area, and 2) to compare the identified early intervention services and supports to evidence-informed domains defined by the National Center for School Mental Health (NCSMH): interventions, community partnerships, and resources.

Research Questions

1. What resources do school districts use to provide early intervention services and supports in K-12 public schools in a large Midwestern metropolitan area?
2. What interventions do K-12 public school districts implement to provide early intervention services and supports to students?
3. What community partnerships do districts utilize to provide early intervention services and supports to students?

Participants

Representatives from twelve school districts in a large Midwestern metropolitan area participated. Participants were recruited based on integrated knowledge translation (Bowen & Graham, 2013; Graham et al., 2006) and Gould and Fernandez's (1989) concept of knowledge brokerage, which has been used to study research-to-practice gaps in K-12 contexts (Neal et al., 2015; Neal et al., 2019; Jusinski, 2021). Each district representative(s) was/were identified by their district superintendent who was affiliated with an educational collaborative organization in a large Midwestern metropolitan area.

Inclusion/Exclusion Criteria

Inclusion criteria for this study included if an individual was identified by their school district superintendent as a MBH expert in their respective school district. Exclusion criteria for this study included if a representative from a school district affiliated with the collaborate educational organization did not give permission for the PI to use their district's data for a secondary purpose – i.e., this case study.

Sample Size

Twelve school districts and twenty six total individuals participated. The total number of individuals who represented their school district is displayed below (Table 1). As noted in Table 1, five districts only had one individual who participated in both the survey and interview, but seven districts had different or multiple individuals participate in the survey and interview. Descriptions for the total number of students, schools, full time employee (FTE) staff, race/ethnicity of students, median household income of students, and number of students who qualify for free and/or reduced lunch is included in Table 2.

District	A	B	C	D	E	F	G	H	I	J	K	L
Number of Survey Participants	1	1	1	1	1	1	1	1	1	1	1	1
Number of Interview Participants	2	4	1	5	2	1	2	1	1	3	1	1
Total Number of District Participants	2	4	1	5	3	1	2	1	2	3	1	1
Total Number of Participants	**26**											

Table 1: Total sample size for Case Study$_2$. *District participants are any individuals who participated in either the survey or interview processes. Some district representatives participated in both the survey and interview and are represented accordingly*.

District	Total Students*	Primary Schools (PK-8)**	Secondary Schools (9-12)**	Total Schools**	Total FTE Staff *	Race/Ethnicity of Students* *WT=White* *HS= Hispanic* *BLK/AA= Black or African American* *ASN= Asian* *AI/AN=American Indian/Alaskan Native* *NH/PI= Native Hawaiian or Other Pacific Islander* *2+= Two or More Races*							Median Household Income of Students**	Students who qualify for free/reduced lunch*
n = 12	138,844	239	32	271	Elementary n = 5346	*WT*	*HS*	*BLK/ AA*	*ASN*	*AI/ AN*	*NH/ PI*	*2+*	$85,362	52,896
					Secondary n = 2349	51%	21%	12%	5%	1%	<1%	5%		

Table 2: Aggregated demographic information totals from the twelve participating school districts.

*Information from Nebraska Education Profile (2022), **Information from National Center for Education Statistics (2022)

Project Timeline

In the summer of 2021, the director of a collaborative educational organization conducted one-on-one conversations with the twelve school district superintendents in a large Midwestern metropolitan area. Each superintendent independently determined that student mental health was a priority issue for their school district in the 2021-2022 academic year, in part because of the stressors exacerbated by the COVID-19 pandemic. In late summer of 2021, the principal investigator (PI) joined the collaborative educational organization as a consultant and conducted a literature review to inform the creation of a survey and interview protocol with the intent to produce a wide-lens, community snapshot of the mental health promotion, early intervention, and treatment services provided to K-12 students in the large Midwestern metropolitan area. The survey and interview protocol also included input from a local pediatric healthcare system. In August 2021, a representative from the collaborative educational organization emailed the survey to district representatives from each participating school district with a request to complete the survey. In September 2021, a minimum of one representative from each participating school district completed the survey. From September to October 2021, the PI conducted interviews with representatives – i.e. knowledge brokers (Gould & Fernandez, 1989; Neal et al., 2015) – from each participating district to acquire additional understanding about the resources districts use to provide mental health promotion, early intervention, treatment services to students. In addition, the PI inquired about the interventions districts use to help students acquire needed services and the community partnerships each district uses to address student mental health needs. In December 2021, the PI presented a preliminary, practical summary of the results to a collaborative educational work group, which included representatives from each participating school district.

Methodology

The PI designed the case study using a triangulation mixed methods design to answer the research questions. This study methodology involved the PI simultaneously collecting survey and interview data, giving equal weight to each (Sheperis et al., 2010; Creswell & Clark, 2018). The PI created the survey and collected the survey data in Qualtrics. The survey data was then exported to Microsoft Excel and coded (Syed and Nelson, 2015), de-identifying each participant's data with a random letter assignment. In addition to the survey, the PI developed an interview protocol with the intent to provide depth and detail to each research question (Teddlie, C. & Tashakkori, A., 2009). During each interview, the PI took field notes (Charmaz, 2006), audio recorded each interview, and exported audio recordings to the transcription software platform, Otter.ai. Next, two members of the research team reviewed each transcript for accuracy and two team members used selective coding (Strauss and Corbin, 1994) and independently conducted line-by-line coding to develop categories in the qualitative data set. Next, two members of the research team reviewed the independently

developed categories and used theoretical coding (Charmaz, 2006) to integrate the identified categories into emergent themes.

Case Study$_2$ utilizes survey and qualitative data from representatives of twelve school districts in a large Midwestern metropolitan area within three evidence-informed domains defined by the National Center for School Mental Health (2020b; 2020c; 2020d; 2020e) which identify resources that drive early intervention mental health services and supports, the interventions districts implement to provide early intervention mental health services and supports, and the community partnerships districts utilize to provide early intervention mental health services and supports. The University of Nebraska Medical Center's Office of Regulatory Affairs determined this Case Study did not constitute human subject research as defined at 45CFR46.102.

Quantitative measure: The research team identified three questions out of the survey (Appendix C) and compared them to the appropriate funding/sustainability, Tier II interventions, and teaming domains defined by NCSMH. The following survey questions related to early intervention supports and services were analyzed:

Resources (NCSMH Funding & Sustainability)

- SQ4 (Educator MH knowledge): In general, how well informed are your educators on the identification of possible student mental health issues? *The response scale was 0-100, zero being defined as "not informed at all" and one hundred defined as "extremely informed."*

Tier II Interventions (NCSMH Early Intervention Services & Supports)

- SQ10 (Process to identify MBH issues): Does your district have a process through which to identify student mental health issues?

Community Partnerships (NCSMH Teaming)

- SQ14 (Willingness to collaborate with MBH providers): Would your district be willing to participate in virtual education sessions given by mental health providers on the identification and classroom management of mental health conditions?

Qualitative measure: The research team identified eight questions out of the interview protocol (Appendix D) and survey (Appendix C) to provide depth to the quantitative comparison of participants' survey responses to the appropriate Tier II interventions, teaming, and funding/sustainability domains defined by NCSMH. The following questions from the interview protocol were analyzed:

Resources (NSCMH Funding & Sustainability)

- IQ6 (Data to track MH improvement): What data point(s) or accomplishments would make you feel that the district is improving success in dealing with mental health issues?

Tier II Interventions (NSCMH Early Intervention Services & Supports)

- IQ2a (Areas of MH concern): What mental health conditions does your staff feel are prevalent in their classrooms? Is there one which causes more concerns for your educators?
- IQ1a (MH identification process for students): Describe what happens when an educator identifies a potential mental health issue for one of their students.
- SQ5 (Process to distinguish MBH issues): How does your district distinguish between student behavioral issues and student mental health issues?
- SQ11 (MBH response options): What options are used in your district to respond to identified student mental health issues?

Community Partnerships (NCSMH Teaming)

- IQ3 (Community partnerships): In your survey response, you answered that your district works with agencies A, B, C... Please describe how you work with these agencies.
- IQ3a (Effective partnerships): Are there any of these partnerships that are more helpful or successful than others? Are there any changes that would make the relationships more effective?
- IQ3b (Perceived system effectiveness): Do you feel the "system" works for you and your students? If not – why? If so, what is working?

See Table 4 for a description of the three evidence-informed domains related to MTSS Tier II, the types of data collected, and data analysis used in Case Study$_2$.

Triangulation Mixed Methods Case Study		**Data**		**Statistical Methods**
NCSMH Domains		Survey Questions (QUAN)	Interview Questions (QUAL)	Data Analysis
Case Study$_2$ *MTSS Tier II*	Resources (*NCSMH Funding & Sustainability)*	Educator MH knowledge	Data to track MH improvement	QUAN: Histograms are used to provide essential information about one continuous variable (Educator MH knowledge) and two categorical variables (Process to identify MBH issues, Willingness to collaborate with MBH providers). QUAL: Thematic Analysis for eight qualitative variables (Areas of MH concern, Data to track MH improvement, MH identification process for students, Process to distinguish MBH issues, MBH response options, Community partnerships, Effective partnerships, Perceived system effectiveness)
	Interventions *(NCSMH Early Intervention Services & Supports)*	Process to identify MBH issues	Areas of MH concern, MH identification process for students, Process to distinguish MBH issues, MBH response options	
	Community Partnerships *(NCSMH Teaming)*	Willingness to collaborate with MBH providers	Community partnerships, Effective partnerships, Perceived system effectiveness	

Table 4: Methodology used in Case Study$_2$

Data Analysis

Quantitative Analysis: Histograms were created to provide essential information about one continuous variable (Educator MH knowledge) and two categorical variables (Process to identify MBH issues, Willingness to collaborate with MBH providers).

Qualitative Analysis: Thematic Analysis was conducted to explore eight qualitative variables (Areas of MH concern, Data to track MH improvement, MH identification process for students, Process to distinguish MBH issues, MBH response options, Community partnerships, Effective partnerships, Perceived system effectiveness).

Results

In the following section, quantitative and qualitative results from $Study_2$ are utilized within the following NCSMH (2020b-d) domains, which include: 1) funding & sustainability, 2) Tier II early intervention services & supports, and 3) teaming. First, $Study_2$ results are compared to the appropriate NSCMH (2020d) evidence-informed intervention recommendations to help school districts acquire adequate financial resources for early intervention services and supports. Next, quantitative and qualitative results from $Study_2$ are compared to the appropriate NCSMH (2020a) *MTSS Tier II early intervention* evidence-informed recommendations. Finally, $Study_2$ results are compared to the appropriate NCSMH (2020c) evidence-informed recommendations related to "teaming" which includes developing practices that school districts use to sustain community partnerships to address their early intervention needs.

Resources (NCSMH Funding & Sustainability)

The following results address the research question, "*What resource do K-12 public schools use to provide early intervention services and supports to students?"* Descriptive statistics for one quantitative, continuous variable (Educator MH knowledge) measured participants' reports in NCSMH's funding & sustainability domain. As Figure 8 demonstrates, two participants rated their educators as being very well informed on identifying possible student mental health issues – recording a score range of 80 to 100, five participants rated their educators as generally informed – recording a score range of 60-80, four participants rated their educators as being moderately informed – recording a score range of 40-60, and one participant rated their educators as not well informed – recording a score range of 0-20. The mean score for all twelve participants was 60. In practice, participant responses align with

NCSMH (2020b) early intervention services and supports domain by providing their educators adequate training, professional development, and implementing MBH early identification processes to monitor individual student progress across tiers.

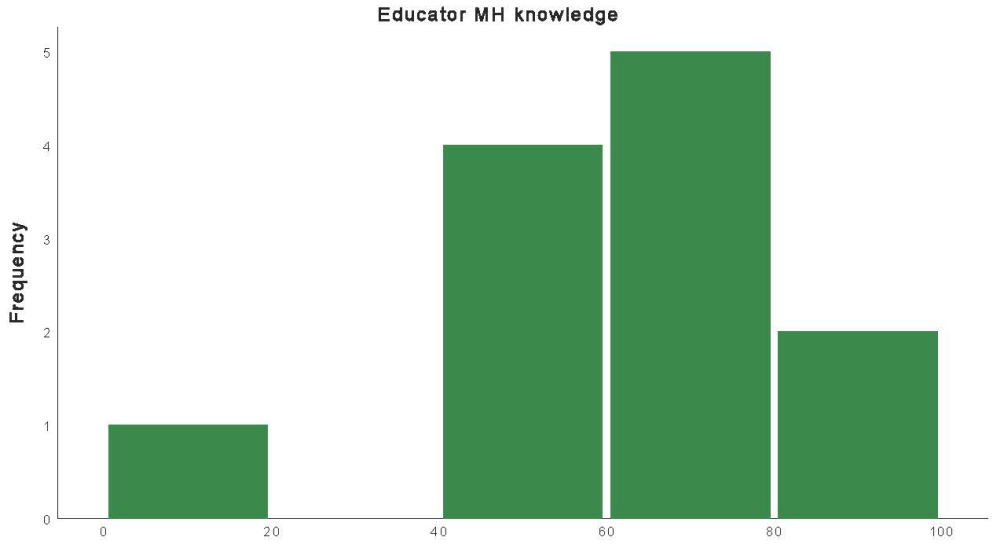

Figure 8: Participant reports of how well they perceive their educators are on the identification of possible student mental health issues. *The response scale was 0-100, zero being defined as "not informed at all" and one hundred defined as "extremely informed.*

Data to track mental health Improvement

Participants' reports in this area varied widely. Some district representatives reported their districts already had a strategic plan that incorporated early intervention activities and ensured funding and resources aligned with supporting a full continuum of care (NCSMH, 2020d). Other participants noted no formalized activities to maximize the expertise and resources of school mental health partners (NCSMH, 2020d). In alignment with NCSMH (2020b) recommendation to monitor individual student progress across tiers, the majority of district representatives report utilizing attendance reports, behavioral reports, and tracking the number of students they refer to MBH professionals for services. In addition, six (6) participating districts reported the use of universal screening procedures and six (6) participating districts reported not using universal screening procedures. In summary, some participants reported that their district already had a strategic plan formalized to support early intervention activities, but other participants highlighted a dire need of their school districts to formally prioritize student mental health to invest in evidence-informed early intervention services and supports. There is wide between-group variance among the reports of if and how district representatives track data related to student

MBH. The quotation below provides an example of one end of the data tracking spectrum. In other words, some K-12 school district leaders implement a practical, outcome-oriented tracking method.

> *"I have always just kind of thought… Did [the district] handle it? And did we give [the student] the help that [the student] needed?" (District H Representative)*

Some district representatives are cautious about tracking student MBH data due to their concerns about the lack of current capacity of both educational and medical systems to provide any indicated MBH services. In other words, if early intervention processes – e.g., universal screening practices – are implemented in their district, some participants do not believe either system has the adequately capacity to respond to the student MBH needs that follow. One participant noted:

> *"I think… the issue is that when you start having these discussions on mental health - this is what scares me - is that we can celebrate and say we are gonna have these mental health conversations with kids. And we have conversations with teachers, which I'm 100% for... But where I pump the brakes is… are [districts] ready to actually [follow through] and have [sufficient] services to support [the identified students with MBH need]? [Also, educators have] one shot to bring [students into contact with indicated MBH services and supports]… one shot. And if you don't bring [the student] in that one shot, they are going to go further and further back. And then who knows? [The student] might get caught up in the [medical] system or whatever, and then they're back… then they have this distaste [due to their interaction with the medical system] because they were made to go there [by the educational system]." (District C Representative)*

Other district representatives report a strong desire for guidance about what MBH data they could be tracking and how to effectively track student MBH data. In other words, some district representatives report being at "ground zero" as it relates to documenting the impact of student MH on educational outcomes. For example, one participant said:

> *"We are just figuring it out as we go. There's not a very… clear picture of how to do it. So that's something we have to… figure out how to do." (District F Representative).*

Tier II Interventions (NCSMH Early Intervention Services & Supports)

The following results address the research question, "*What interventions do school districts implement to provide early intervention services and supports in K-12 public schools in a large Midwestern metropolitan area?*" Descriptive statistics for one quantitative, categorical variable (Process to identify MBH issues) measured participants reports in NCSMH's early intervention services and supports domain. Participants answered the survey question, "Does your district have a process through which to identify student mental health issues?" As displayed in Figure 9 most (9/12) of the participating districts have a process in place to identify student mental health issues. Examples of the early intervention processes used by participants included MTSS; ClassroomWise; Universal Screeners including the Devereux Student Strengths Assessment (DESSA), Social, Academic, and Emotional Behavioral Risk Screeners (SAEBRS); suicide intervention curricula; Safe2Help; short surveys proctored by guidance counselors; collaboration with social workers; and various processes that measure internalizing and externalizing behaviors and funnel referrals to MBH providers for evaluation. These results generally align with the NCSMH (2020b) early intervention services and supports domain for districts to match Tier II services and supports to the unique strengths, needs, and cultural/linguistic considerations of students and families and implement a systematic protocol for emotional and behavioral crises.

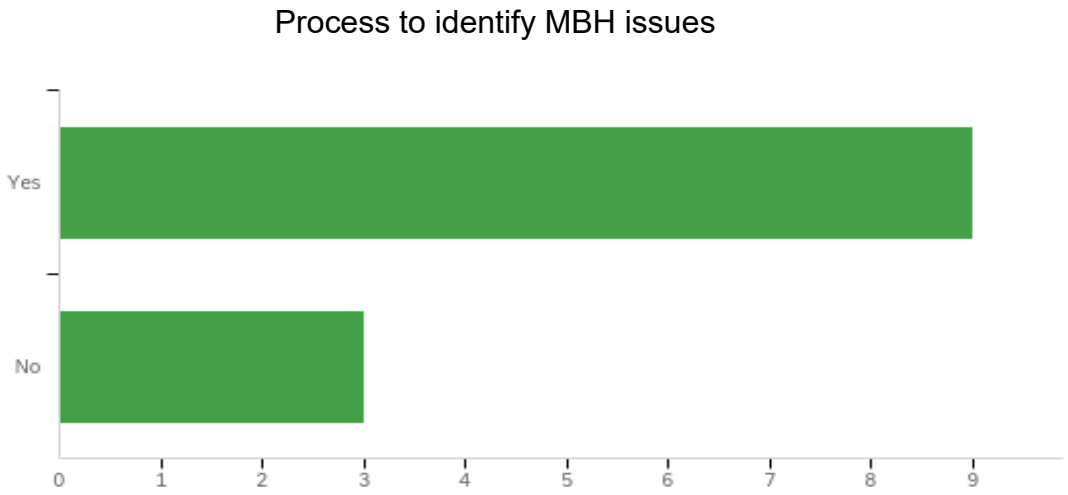

Figure 9: How many participating districts report have a process in place to identify student mental health issues

Areas of MH concern

From the perspective of participants, increased anxiety and mental health needs existed in the 2020-2021 academic year compared to previous years. For example, participants reported that anxiety exists at higher levels than normal for everyone – i.e., students, families, educators, and administrators – since the beginning of the COVID pandemic. Because of the widespread perceived increase of baseline anxiety, participants reported a greater need for mental health support amongst students, families, and school personnel. The following interview quotes provide examples of how district representatives conceptualize mental health concerns differently. These quotes exemplify the variety of perspectives district representatives have regarding school mental health (Weiss, 1979) and the likelihood of whether or not participating district representative perspectives align – or do not align – to NCSMH's (2020b) early intervention services & supports domain.

Currently, not all districts have the adequate resources to train, predict, identify, or manage student mental health issues in their classrooms. As demonstrated in the quotation below, students enter the school environment with unique life experiences, stressors and levels of mental health need. In response, district representatives report the need to create a constellation of MBH services to alleviate acute stressors, promote positive mental health, and encourage early intervention with the ultimate intent of improving student academic outcomes.

"There's just so many layers, you know… there's the behavior… happening in the school setting. And then myself - or one of the counselors - talk to the family, and there's just a lot more pieces to it. A lot of times… maybe it is [a kiddo who has experienced] past trauma and… getting triggered in a particular setting." (District F Representative)

In the context of student mental health, district representatives noted the critical intersection between student and educator mental health management. From many participants' perspective, providing MBH resources to students and educators are equally important, especially in the context of early intervention services and supports. For example, if an educator is struggling to manage their grief due to a personal loss, they are not as likely to identify a student in their classroom who may be displaying early signs of MBH struggle. One participant noted:

"There is more [MBH] need than there is service… I will tell you that I would echo that concern [regarding] staff… I think sometimes [educators are] so focused on students that we do forget the [MBH issues] people - that are doing that day to day with our students - have also gone through." (District G Representative)

Some district representatives described the on-going, nuanced, informal assessment process that many educators naturally perform on a daily basis. For example, clinical mental health providers are trained to distinguish between depression and anxiety disorders, but educators have daily access to the early signs and symptoms presented by students in school settings. Another participate shared their experience in the K-12 setting:

"I would argue I see depression… more than anxiety. Because I hear [from students] anxiety all the time [but] I never see it really manifest itself… [of course] you do in some of the extremes, but I feel like I can see depression in the hallway." (District B Representative)

Over time, social perspectives on MBH have evolved. As demonstrated in the quotation below, some district representatives shared the common viewpoint in communities across the nation that the "research data" related to mental illness may simply be a re-organized way to re-define the issues that have always existed in educational settings. In other words, the perspectives of district representatives impact how their schools identify and manage the early identification of student MBH issues.

"Kids are so anxious about all the things that they do in high school, they are so involved in many different things. And they want to do very well in many different things. [Educators] are just hearing [about mental health and anxiety] more… I've been in the district [over thirty years]. So I am kind of an old timer. Just know that it [i.e., mental health and anxiety] is talked about way more than it ever has been." (District H Representative)

Process to distinguish MBH issues

See below for descriptions of the processes participants reported that their respective districts use to identify student MBH issues. In their responses to the question, "How does your district distinguish between student behavioral issues and student mental health issues?" many participants noted how challenging it is to identify the root cause(s) of some student's behavioral and/or mental health issues, even with formal and informal MBH assessment processes in place. For example, some

district representatives reported that their district has a process to identify externalizing and internalizing risk factors by administering a screener and/or gathering observational input from teachers, guidance counselors, parents, and their students. Not surprisingly, many participants mentioned their district has a process to refer students in need of formal assessment to internal resources – e.g., Individual Education Plans, MTSS teams – and external resources – e.g., outside agencies who partner with participating districts to provide professional MBH services to students. Two participant quotations describe a holistic, teamwork-grounded assessment process to distinguish between student behavioral health and mental health issues – i.e., by matching early intervention services and supports to the unique strengths, needs, and cultural/linguistic considerations of students and families; monitoring individual student progress across tiers; and developing partnerships with youth, family, community entities to produce efficient referral processes and data-based decision making (NCSMH, 2020b; 2020c). Many district representatives describe a battery of holistic, informal, and formal assessment processes to determine student MBH needs and early intervention. From the perspective of participants, their educators embody the front line of MTSS Tier I and II support staff, identifying the MBH, academic, environmental, and social needs of their students. One participant stated:

"We use observation and conversations to determine what is at the root of the [student's concerning] behavior. [School] Administration investigates situations and fold[s] in services as needed... We watch for patterns of [student] behavior that help tell a full story of what may be happening." (District J Representative)

Additionally, some district representatives reported having already implemented comprehensive and multi-layered procedures to intervene at various levels of student MBH need in their schools. For example, the quote below describes specific intervention pathways to address the function of student behaviors. In other words, some district representatives integrate concepts from systems change and public health into their educational settings.

"We prioritize learning about the function of a student's behavior, why they are behaving a certain way - and then we work to solve [the underlying issues] using either behavioral intervention strategies or social-emotional/self-regulation strategies. Behavioral intervention plans, the explicit teaching of

prosocial replacement behaviors, the explicit teaching of self-monitoring and self-regulation skills and providing a safe space for students to deescalate/regulate are keys to reducing behaviors, regardless of the root cause." (District C Representative)

MH Identification Process for Students & Response Options

In addition, district representatives noted a number of specific resources they use to identify student mental health issues at various grade levels, including but not limited to referrals to MBH professionals – i.e., school psychologists, social workers, or counselors - who provide individual and small group interventions within their districts' schools. Furthermore, participants reported a variety of practices that align with NCSMH (2020b; 2020c) domains by ensuring the implementation of treatment services and supports are supported by adequate resource capacity and by reporting the use of multidisciplinary teams, partnerships, and processes to support early intervention efforts. Examples of early intervention practices reported by participants include developing working relationships with MBH providers from various local community entities, working with county mental health teams, providing remote learning options to students who experience disruptive MBH issues, intentionally getting parents [and other critical student support resources] involved, consulting with medical professionals to create reasonable learning accommodations when students return from acute MBH services, adjusting student schedules and shortening days, and utilizing regional behavioral health services offered by the state. Only one participating district representative mentioned suspension as a "rarely used" option to respond to identified student mental health issues, which aligns with NCSMH's (2020a) recommendation that school districts reduce exclusionary discipline practices.

Community Partnerships (NSCMH Teaming)

The following results address the research question, "*What community partnerships do districts utilize to provide early intervention services and supports to students?*" See Figure 10 for participant responses to the question, "Would your district be willing to participate in virtual education sessions given by mental health providers on the identification and classroom management of mental health conditions?" Eleven of the twelve total participants reported they are willing to participate in virtual education sessions related to early identification and classroom management strategies. In other words, this quantitative, categorical variable demonstrates that the overwhelming majority of participants intend to align with NCSMH's (2020b; 2020c) domains by indicating an intention to create

interdisciplinary teams, determine whether or not early intervention services are evidence-informed, and ensure the implementation of early intervention services are supported by adequate resource capacity.

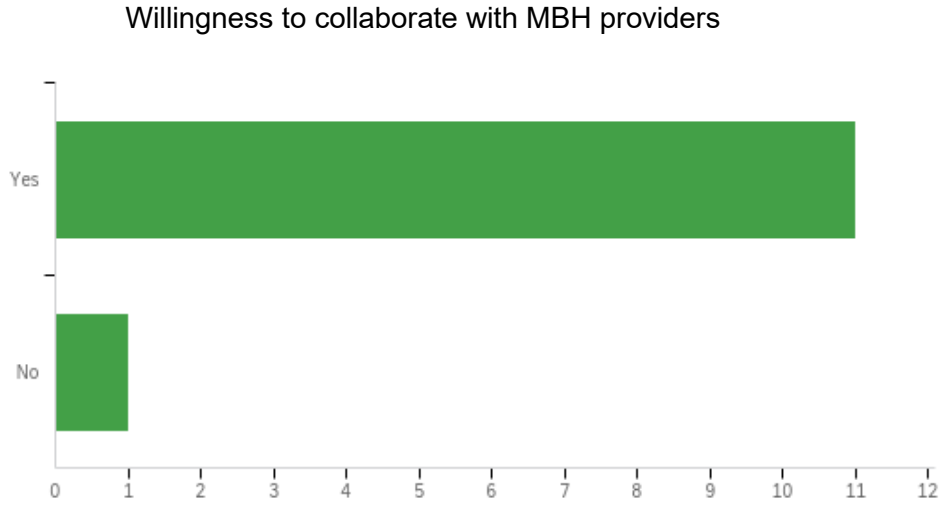

Figure 10: Participants responses to the question, “Would your district be willing to participate in virtual education sessions given by mental health providers on the identification and classroom management of mental health conditions?”

In addition, see below for three qualitative areas (Community partnerships, Effective partnerships, Perceived system effectiveness) to provide depth to participants reports in NCSMH’s teaming domain.

Community Partnerships, Effective Partnerships, Perceived System Effectiveness

As part of MTSS Tier II activities, community partners provide critical early intervention services to districts including on-site and off-site assessment support. In addition, formal partnerships between MBH professionals between educational and medical systems streamline the communication required for timely assessment and early intervention services. Participating district representatives reported that the most helpful community partners engage in their districts strategic planning process over time and participate in open communication when issues arise. Various examples of community organizations exist, and each are mission driven, employing MBH specialists to provide early intervention services to particular clientele. In the context of K-12 education, representatives from community partners who provide early intervention services to

students and their families include but are not limited to economic assistance programs, housing or food security resources, free or reduced healthcare and legal clinics, domestic violence shelters, and non-profit organizations that specialize in child welfare and trauma-informed MBH services and supports. Through the use of strategic partnerships with local MBH providers, community organizations, and medical institutions, participants generally reported practices that aligned with NCSMH (2020b; 2020c) domains by ensuring implementation is supported by adequate resource capacity and establishing multidisciplinary teams to avoid duplication and promote system efficiency. See below for two participant quotations that describe the importance of community partnerships as they relate to MTSS Tier II activities. Participants widely reported the importance of immediate and timely intervention services to improving student MBH outcomes. Some district representatives report not having reliable access to valuable MBH consultant services which relates to the safety of their students during MBH crises and the escalation or de-escalation of students who experience MBH issues in their districts. One participant aptly noted:

"To hear our [guidance] counselors talk about having [a community partner who specializes in MBH] that they could call within 20 [minutes]… quickly, that makes all the difference." (District H Representative)

Another participant provided an explicit example of a barrier that students and their families experience when engaging in early intervention services provided by MBH professionals in medical settings. In the "real world," some student parents and legal guardians contact mental health professionals to intervene immediately after dysfunctional student MBH symptoms are reported to them by educators or educational administrators. In particular, the quote above illuminates a common healthcare experience for many students and their families – e.g., being required to provide "proof of insurance" to a healthcare worker before any attempts are made by the healthcare worker to acknowledge their humanity and develop the foundation of a trusting relationship. For example, one participant stated:

"Parents don't have money… so when you tell me when the first [medical system interaction includes]… which insurance card [do you have] or what's this, that's gonna piss off somebody. (District C Representative)

A minority of district representatives also highlighted the importance of their intent to not duplicate services when students and their families are being assessed for early intervention services and supports. The quotation below was echoed by many participants who mentioned frustration by the systematic "red tape" that often exists between medical and educational systems when students are receiving treatment by a MBH professional.

> *"We want to be sure that we are [also] assessing what is going on within the [student's] family because they may already have a provider and so maybe [the early intervention] is us getting a release [of information] for that provider versus referring [the student] to a service that [the student] already has, where teachers are not necessarily going to have the time to delve into that further conversation." (District G Representative)*

Discussion

What Study$_2$ Adds to Literature

Identifying the variety of universal mental health screening practices by public K-12 school districts in a large Midwestern metropolitan area is the most critical research-to-practice gap filled by Case Study$_2$ (Cook et al., 2015; Miles et al., 2010). Half of the participating districts reported the adequate infrastructure, sustainable funding, and community buy-in needed to implement the use of universal screeners, but half did not. Interestingly, Case Study$_2$ results display higher district usage of universal MBH screening than in schools across the US, many of which describe limited community buy-in to universal MBH screening activities in schools due to the presence of other educational priorities, lack of adequate resources, and the stigma of mental illness (Burns & Rapee, 2022; Wood & McDaniel, 2020; US Department of Education, 2021; Bruhn et al., 2014). Across the US, examples of Tier II implementation practices exist including screening and brief interventions – e.g., SBIRT (Elkin et al., 2022), screening for positive mental health (Chan et al., 2022), the use of multi-disciplinary collaboratives (West et al., 2022) and behavioral health technology (Ulie-Wells et al., 2022) to improve screening rates, and examples of educational systems that analyze the cost and cost-effectiveness of Tier II interventions – e.g., First Step Next (Lee et al., 2022).

Although MBH screening is a recommended best practice (NCSMH, 2020b), not all district representatives, schools, or communities are in support of universal screening activities. Furthermore, participants reported variable alignment with other NCSMH (2020b; 2020c; 2020d) domains, including their teaming practices and funding/sustainability activities. Similar to other studies (Kilpatrick et al.,

2021; Dart et al., 2019; Husabo et al., 2020a), notable differences emerged between district representatives in how they identify students with MBH needs, match appropriate services to student needs, and partner with local community entities to provide early intervention services and supports to their students.

Emergent Themes

Similar to national trends (Kilpatrick et al., 2021; Dart et al., 2019; Husabo et al., 2020a), participants reported significant variation in their district's use of community partnerships to provide early intervention services and supports. For example, some districts have strategic plans that formally prioritize mental health, ensuring the implementation of early intervention services is supported by adequate resource capacity and uses multidisciplinary teams to maximize the resources of potential school mental health partners (NCSMH, 2020d; 2020b), but other participants reported not knowing where to go for guidance. This result matches other studies across the US, because formal partnerships between school districts and community partners are sometimes stymied by local resource scarcities, socioeconomic trends, and power dynamics (Alegría et al., 2018; DHHS, 2021; Healthy People 2030, 2022c). Similar to other exemplars that demonstrate successful and sustainable school-community partnerships (NCSMH, 2020c; NCSMH, 2020e), the district representatives who reported establishing formal partnerships with local MBH providers, community organizations, and medical institutions also reported having developed comprehensive systems of care for their students.

Recommendations

1. *Communication pathways between educational and medical systems need to be improved.*

Participants reported a systematic lack of effective communication between educational and medical systems. Systematic barriers are well-documented (Lucas, 2019; Shelton and Owens, 2021; Kaufman et al., 2015; Woodbridge et al., 2015; Bruhn et al., 2014; Green et al., 2016) and interventions to improve communication – e.g., the development of diverse community partnerships and comprehensive mental health systems – are recommended (Hoover & Bostic, 2021; NCSMH, 2020d-e; US Surgeon General, 2021; US Department of Education, 2021).

2. *Every district representative reported using a unique constellation of resource referrals, therefore creating an accurate inventory – i.e., a resource map – of community-wide mental health resources that are relevant to K-12 comprehensive school mental health systems is indicated.*

Participants reported a continuum of resource lists, referral networks, and community partnerships to provide early intervention resources to their students. Alongside developing sustainable partnerships with local healthcare systems and community agencies, some districts are using federal, state, and private resources (US Department of Education, 2021; US Surgeon General, 2021; Lucas, 2019; Shelton and Owens, 2021) to provide Tier II services and supports. Some districts also report interest in a coordinated effort to conduct resource mapping to organize housing, economic, food security, dental, medical, and MBH resources (NCSMH, 2020f).

Limitations

Limitations exist to the generalizability of Case Study$_2$ results because it examined pre-existing data initially collected for a different purpose – i.e., a need to identify early intervention practices in a large Midwest metropolitan area. Furthermore, Case Study$_2$ results do not consider the early intervention experiences of students, their families, and other educators. Case Study$_2$ results only document the perspectives of public K-12 school district representatives, because their respective superintendents identified each participant as a MBH expert. Ultimately, Case Study$_2$ was designed to identify the early intervention practices reported by participants and compare the reported practices to three evidence-informed domains. Unlike other studies, the study only includes only a cursory assessment of the implementation barriers of early intervention practices in educational settings (Burns & Rapee, 2021; Moore et al., 2022).

Additional Research Needed

Educators across the nation are engaging in partnerships that maximize their ability to use local MBH experts to identify and intervene with students who experience disruptive MBH issues in the classroom (Greig et al., 2019; Kranz et al., 2020), yet more research is needed to facilitate the integration of early intervention services and supports in educational settings (Bynum & Sukhera, 2021). The reported variation of early intervention services and supports is critical to highlight and a recommended area for future dissemination and implementation research studies (Smith et al., 2020; Bruhn et al., 2014; Siceloff et al., 2017; Adelman, 2002).

Chapter 3 –MTSS Tier III

Introduction

The mental and behavioral health needs for school age children in the US are urgent (US Department of Education, 2021; US Surgeon General, 2021). From 2016-2019, the CDC reported increases in depression and anxiety disorders for 6-17 year olds (Bitsko et al., 2022) and US youth are utilizing emergency rooms at increasing rates to acquire acute mental health services (Kalb et al., 2019). Furthermore, suspected suicide attempts for US youth are also increasing – 4% for males and 51% for females from 2019 to 2021 (Yard et al., 2021). MBH needs exist globally, and youth across the world report that their depressive and anxious symptoms doubled during the COVID-19 pandemic (Racine et al., 2021). Within schools, some students are particularly vulnerable to mental illness (SAMHSA, 2015a), including students who live in poverty, have unstable housing, are differently abled, or of a minority racial, ethnic, language, immigration, sex, or LGBTQ+ status (Department of Education, 2021). Because K-12 schools are often “safe spaces” for children who live in extreme life circumstances, students are more likely to access mental healthcare services in educational settings than in other settings (DHHS Office of Disease Prevention and Health Promotion, 2021; Gustafson et al., 2021; Chadwick and Collins, 2015; West et al., 2011; Mollah et al., 2018). Most importantly, school settings provide an opportunity for students with clinical MBH needs to access needed treatment services (US Surgeon General, 2021) and manage co-occurring disorders (Ghandour et al., 2018).

Common barriers exist that hinder students’ access to and use of professional MBH services in educational settings, including the social stigma of reaching out for MBH help (US Department of Education, 2021), limited mental health knowledge (Radez et al., 2021), a lack of trust in the confidential nature of the therapeutic relationship with MBH professionals (Leahy et al., 2013), cultural mismatch between youth and MBH professionals (Mollah et al., 2018), language and technology barriers to access healthcare delivery systems (US Surgeon General, 2021), the financial cost of services (US Department of Education, 2021; US Surgeon General, 2021), and logistic challenges – e.g., personal time constraints, transportation difficulties, and interference with the other activities youth are involved in (Radez et al., 2021). To track school-based referrals to MBH treatment providers, many K-12 schools in the US implement Multi-Tiered Systems of Support (MTSS, Figure 1), a tiered intervention framework that tracks academic and MBH outcomes within the academic context. Mental health treatment services and supports are defined within the MTSS framework and will be used to frame Case Study$_3$.

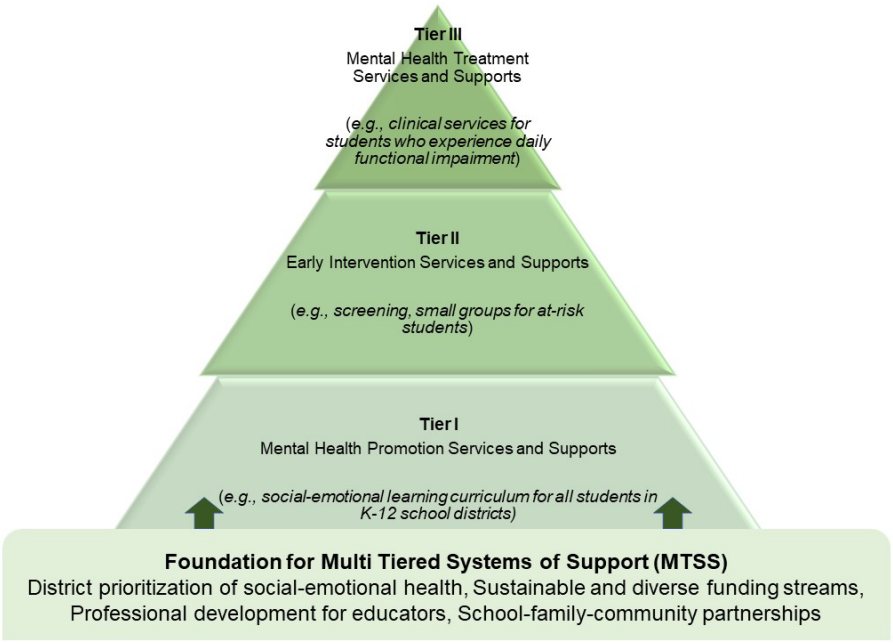

Figure 1: Multi-Tiered Systems of Support Intervention Framework (Adapted from Hoover et al., 2019)

At the highest level of care on the MTSS intervention spectrum, students receive individualized treatment services provided by professional helpers (Hoover et al., 2019; US Department of Education, 2021; Miles et al., 2010). Students who require MTSS Tier III interventions experience significant, functionally disruptive mental health challenges that impede their ability to effectively engage with the learning environment (NCSMH, 2020b). SAMHSA (2019a) defines receiving mental health services as “having received inpatient treatment/counseling or outpatient treatment/counseling or having used prescription medication for problems with emotions, nerves, or mental health.” In the context of school mental health, students with clinical mental health needs are provided treatment services by licensed mental health professionals including psychiatrists, psychologists, social workers, and therapists.

Students are six times more likely to complete mental health treatment if it is offered in their school environment, as compared to treatment services offered in a community setting (Jaycox et al., 2010). To support their students with highest relative need, many school districts develop partnerships with local community organizations and mental health providers to complement the mental health promotion and early intervention services offered at MTSS Tier I and Tier II (Hoover et al., 2019). Approximately 5% of school-aged youth need Tier III treatment services and on-going clinical care (Asby et al., 2020), although whether or not they receive care depends on the infrastructure, policies, and practices of their local school district (Adelman & Taylor, 2021).

National Center for School Mental Health Domains

NCSMH (2020b) recommends school districts to follow the MTSS Tier III intervention best practices of: 1) determining whether or not services are evidence-informed; 2) matching treatment services and supports to the unique strengths, needs, and cultural/linguistic considerations of students and families; 3) ensuring the implementation of treatment services and supports are supported by adequate resource capacity; 4) supporting educator training, professional development, and implementation; 5) monitoring implementation fidelity; 6) creating Specific, Measurable, Achievable, Relevant, and Time-bound (SMART) intervention goals; 7) monitoring individual student progress across tiers; and 8) implementing a systematic protocol for emotional and behavioral crises.

Furthermore, NCSMH (2020c; 2020d) recommends the following best practices related to the importance of districts to sustain community partnerships that address mental health treatment through developing: 1) multidisciplinary teams; 2) youth and family partnerships; 3) [system] efficiency; 4) meeting structures and processes; 5) delineated roles and responsibilities; 6) effective referral processes to school services; 7) effective community service referral processes; 8) data-based decision [protocols] for student interventions; and, 9) data sharing [policies and practices].To ensure school efforts are sustainable, NSCMH (2020d) recommends a handful of best practices to help school districts acquire adequate resources for mental health treatment services and supports, including to: 1) use multiple and diverse funding resource to support a continuum of care; 2) coordinate funding streams; 3) ensure funding and resources align to support a full continuum of care; 4) establish a process to develop, evaluate, and update financial planning; 5) leverage funding and resources to attract potential contributors; 6) have strategies in place to maintain staff; and, 7) maximize the expertise and resources of school mental health partners.

Literature Gaps

This study intends to identify research-to-practice gaps in a large Midwestern metropolitan area by comparing the mental health treatment services and supports used by twelve public K-12 schools districts to three evidence-informed domains defined by the National Center for School Mental Health (NCSMH). MTSS will provide a framework to compare these system-level practices.

Purpose

The purpose of this research is twofold: 1) to address a community-driven need to identify treatment services and supports that target the mental health needs of K-12 students in a large Midwestern metropolitan area, and 2) to compare the identified treatment services and supports to evidence-informed domains defined by the National Center for School Mental Health (NCSMH): interventions, community partnerships, and resources.

Research Questions

1. What resources do school districts use to provide treatment services and supports in K-12 public schools in a large Midwestern metropolitan area?
2. What intervention barriers do K-12 public school districts experience when providing treatment services and supports to students?
3. What community partnerships do districts utilize to provide treatment services and supports to students?

Participants

Representatives from twelve school districts in a large Midwestern metropolitan area participated. Participants were recruited based on integrated knowledge translation (Bowen & Graham, 2013; Graham et al., 2006) and Gould and Fernandez's (1989) concept of knowledge brokerage, which has been used to study research-to-practice gaps in K-12 contexts (Neal et al., 2015; Neal et al., 2019; Jusinski, 2021). Each district representative(s) was/were identified by their district superintendent who was affiliated with an educational collaborative organization in a large Midwestern metropolitan area.

Inclusion/Exclusion Criteria

Inclusion criteria for this study included if an individual was identified by their school district superintendent as a MBH expert in their respective school district. Exclusion criteria for this study included if a representative from a school district affiliated with the collaborate educational organization did not give permission for the PI to use their district's data for a secondary purpose – i.e., this case study.

Sample Size

Twelve school districts and twenty six total individuals participated. The total number of individuals who represented their school district is displayed below (Table 1). As noted in Table 1, five districts only had one individual who participated in both the survey and interview, but seven districts had different or multiple individuals participate in the survey and interview. Descriptions for the total number of students, schools, full time employee (FTE) staff, race/ethnicity of students, median household income of students, and number of students who qualify for free and/or reduced lunch is included in Table 2.

District	A	B	C	D	E	F	G	H	I	J	K	L
Number of Survey Participants	1	1	1	1	1	1	1	1	1	1	1	1
Number of Interview Participants	2	4	1	5	2	1	2	1	1	3	1	1
Total Number of District Participants	2	4	1	5	3	1	2	1	2	3	1	1
Total Number of Participants	**26**											

Table 1: Total sample size for Case Study3. *District participants are any individuals who participated in either the survey or interview processes. Some district representatives participated in both the survey and interview and are represented accordingly*.

District	Total Students*	Primary Schools (PK-8)**	Secondary Schools (9-12)**	Total Schools**	Total FTE Staff *	Race/Ethnicity of Students* *WT=White* *HS= Hispanic* *BLK/AA= Black or African American* *ASN= Asian* *AI/AN=American Indian/Alaskan Native* *NH/PI= Native Hawaiian or Other Pacific Islander* *2+= Two or More Races*							Median Household Income of Students**	Students who qualify for free/reduced lunch*
						WT	*HS*	*BLK/ AA*	*ASN*	*AI/ AN*	*NH/ PI*	*2+*		
n = 12	138,844	239	32	271	Elementary n = 5346	51%	21%	12%	5%	1%	<1%	5%	$85,362	52,896
					Secondary n = 2349									

Table 2: Aggregated demographic information totals from the twelve participating school districts.

*Information from Nebraska Education Profile (2022), **Information from National Center for Education Statistics (2022)

Project Timeline

In the summer of 2021, the director of a collaborative educational organization conducted one-on-one conversations with the twelve school district superintendents in a large Midwestern metropolitan area. Each superintendent independently determined that student mental health was a priority issue for their school district in the 2021-2022 academic year, in part because of the stressors exacerbated by the COVID-19 pandemic. In late summer of 2021, the principal investigator (PI) joined the collaborative educational organization as a consultant and conducted a literature review to inform the creation of a survey and interview protocol with the intent to produce a wide-lens, community snapshot of the mental health promotion, early intervention, and treatment services provided to K-12 students in the large Midwestern metropolitan area. The survey and interview protocol also included input from a local pediatric healthcare system. In August 2021, a representative from the collaborative educational organization emailed the survey to district representatives from each participating school district with a request to complete the survey. In September 2021, a minimum of one representative from each participating school district completed the survey. From September to October 2021, the PI conducted interviews with representatives – i.e. knowledge brokers (Gould & Fernandez, 1989; Neal et al., 2015) – from each participating district to acquire additional understanding about the resources districts use to provide mental health promotion, early intervention, treatment services to students. In addition, the PI inquired about the interventions districts use to help students acquire needed services and the community partnerships each district uses to address student mental health needs. In December 2021, the PI presented a preliminary, practical summary of the results to a collaborative educational work group, which included representatives from each participating school district.

Methodology

The PI designed the case study using a triangulation mixed methods design to answer the research questions. This study methodology involved the PI simultaneously collecting survey and interview data, giving equal weight to each (Sheperis et al., 2010; Creswell & Clark, 2018). The PI created the survey and collected the survey data in Qualtrics. The survey data was then exported to Microsoft Excel and coded (Syed and Nelson, 2015), de-identifying each participant's data with a random letter assignment. In addition to the survey, the PI developed an interview protocol with the intent to provide depth and detail to each research question (Teddlie, C. & Tashakkori, A., 2009). During each interview, the PI took field notes (Charmaz, 2006), audio recorded each interview, and exported audio recordings to the transcription software platform, Otter.ai. Next, two members of the research team reviewed each transcript for accuracy and two team members used selective coding (Strauss and Corbin, 1994) and independently conducted line-by-line coding to develop categories in the qualitative data set. Next, two members of the research team reviewed the independently

developed categories and used theoretical coding (Charmaz, 2006) to integrate the identified categories into emergent themes.

Case Study$_3$ utilizes survey and qualitative data from representatives of twelve school districts in a large Midwestern metropolitan area within three evidence-informed domains defined by the National Center for School Mental Health (2020a; 2020b; 2020c; 2020d; 2020e) which identify resources that drive mental health treatment services and supports, the barriers schools experience when providing mental health treatment services and supports, and the community partnerships districts utilize to provide mental health treatment services and supports. The University of Nebraska Medical Center's Office of Regulatory Affairs determined this Case Study did not constitute human subject research as defined at 45CFR46.102.

Quantitative measure: The research team utilized four questions out of the survey (Appendix C) within the funding/sustainability, Tier III interventions, and teaming domains defined by NCSMH. The following survey questions related to MBH treatment services and supports were analyzed:

Resources (NCSMH Funding & Sustainability)

- SQ6 (MBH employee positions): What employee positions does your district have to provide mental health services to students?
- SQ19 (Adequate resources for MBH services) Does your district have the resources needed to provide adequate mental health services to students so they have the opportunity to participate and succeed in the learning environment

Tier III Intervention Barriers (NSCMH Treatment Services & Supports)

- SQ12 (MBH barrier interventions): Are there barriers for students in your district to access mental health services?

Community Partnerships (NCSMH Teaming)

- SQ8 (Satisfaction with auxiliary services): How satisfied is your district with auxiliary services provided to your students who access mental healthcare?

Qualitative measure: The research team identified seven questions out of the interview protocol (Appendix D) to provide depth to the quantitative comparison of participants' survey responses to the appropriate Tier III intervention, teaming, and funding/sustainability domains defined by NCSMH. The following questions from the interview protocol were analyzed:

Resources (NCSMH Funding & Sustainability)

- IQ5 (Needed resources from health system): What resources do you need from pediatric mental health providers and a pediatric health system to help you and your students achieve the goals you have set?

Tier III Intervention Barriers (NSCMH Treatment Services & Supports)

- IQ4 (Access interventions): What barriers do your students have when trying to access mental health providers?
- IQ4a (Recommendations for overcoming barriers): Do you have recommendations on how to overcome the barriers?
- IQ7 (Investment ideas for MH projects): What services, projects, or initiatives would you like to invest in (or invest more in) if your district received additional funding to address mental health for educators?

Community Partnerships (NCSMH Teaming)

- IQ3 (Community partnerships): In your survey response, you answered that your district works with agencies A, B, C… Please describe how you work with these agencies.
- IQ3a (Effective partnerships): Are there any of these partnerships that are more helpful or successful than others? Are there any changes that would make the relationships more effective?
- IQ3b (Perceived system effectiveness): Do you feel the "system" works for you and your students? If not – why? If so, what is working?

See Table 5 for a description of the three evidence-informed domains related to MTSS Tier III, the types of data collected, and data analysis used in Case Study$_3$.

Triangulation Mixed Methods Case Study		**Data**		**Statistical Methods**
NCSMH Domains		Survey Questions (QUAN)	Interview Questions (QUAL)	Data Analysis
Case Study$_3$ *MTSS Tier III*	Resources *(NCSMH Funding & Sustainability)*	MBH employee positions, Adequate resources for MBH services	Needed resources from health system	QUAN: Histograms are used to provide essential information about three categorical variables (MBH employee positions, Adequate resources for MBH services, MBH barrier interventions) and one ordinal variable (Satisfaction with auxiliary services). QUAL: Thematic Analysis for seven qualitative variables (Needed resources from health system, Access interventions, Recommendations for overcoming barriers, Investment ideas for MH projects, Community partnerships, Effective partnerships, Perceived system effectiveness).
	Intervention Barriers (*NCSMH Treatment Services and Supports*)	MBH barrier interventions	Access interventions, Recommendations for overcoming barriers, Investment ideas for MH projects	
	Community Partnerships *(NCSMH Teaming)*	Satisfaction with auxiliary services	Community partnerships, Effective partnerships, Perceived system effectiveness	

Table 5: Methodology used in Case Study$_3$

Data Analysis

Quantitative Analysis: Histograms were created to provide essential information about three categorical variables (MBH employee positions, Adequate resources for MBH services, MBH barrier interventions) and one ordinal variable (Satisfaction with auxiliary services).

Qualitative Analysis: Thematic Analysis was conducted to explore seven qualitative variables (Needed resources from health system, Access interventions, Recommendations for overcoming barriers, Investment ideas for MH projects, Community partnerships, Effective partnerships, Perceived system effectiveness).

Results

In the following section, quantitative and qualitative results from $Study_3$ are utilized within the appropriate NCSMH (2020b-d) domains, which include: 1) funding & sustainability, 2) Tier III treatment services & supports, and 3) teaming. First, $Study_3$ results are compared to the appropriate NSCMH (2020d) evidence-informed recommendations to help school districts acquire adequate financial resources for treatment services and supports. Next, quantitative and qualitative results from $Study_3$ are compared to the appropriate NCSMH (2020b) *MTSS Tier III treatment* evidence-informed intervention recommendations. Finally, $Study_3$ results are compared to the appropriate NCSMH (2020c) evidence-informed recommendations related to “teaming” which includes developing practices that school districts use to sustain community partnerships to address their treatment needs.

Resources (NCSMH Funding & Sustainability)

The following results address the research question, “*What resources do school districts use to provide treatment services and supports in K-12 public schools in a large Midwestern metropolitan area?”* One quantitative, categorical variable (Adequate resources for MBH services) measures participants’ reports in NCSMH’s treatment services and supports domain. See Figure 11 for a histogram displaying participant responses to the following survey question, “Does your district have the resources needed to provide adequate mental health services to students so they have the opportunity to participate and succeed in the learning environment?” Six participants responded “no”, four responded “yes”, and two participating districts replied “neutral” to this resource-focused survey question. This information strongly supports the importance of NCSMH’s

(2020d) funding and sustainability domain, as half of the participating district representatives reported not having adequate SMH resources to address current student MH needs.

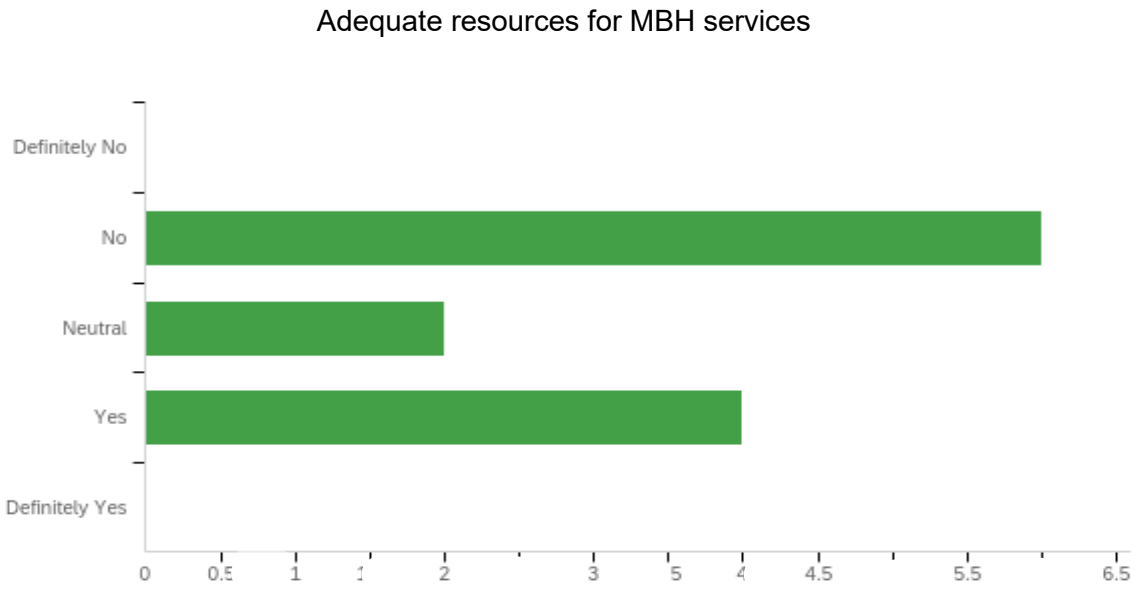

Figure 11: Participant responses to the survey question, “Does your district have the resources needed to provide adequate mental health services to students so they have the opportunity to participate and succeed in the learning environment?”

MBH employee positions

See Figure 12 for a summary of the MBH employee positions district representatives reported using in their respective districts to provide MBH services to students. All twelve district representatives reported that their district uses guidance counselors, ten districts reported using school psychologists, nine districts reported using licensed mental health therapists, seven districts reported using licensed social workers, and one district reported using a licensed psychiatrist. Three participants reported using other employee positions but did not list the names of the positions in their survey responses. These survey responses are evidence that only one participant reported that their district has adequate funding and resources to provide MTSS Tier III services and supports (NCSMH, 2020d; 2020b). The other eleven participant responses highlight critical healthcare workforce and service gaps – i.e., students with severe and persistent mental

illness have extremely limited access to a full continuum of care, especially when students are recommended to be evaluated and/or treated by a licensed psychiatrist.

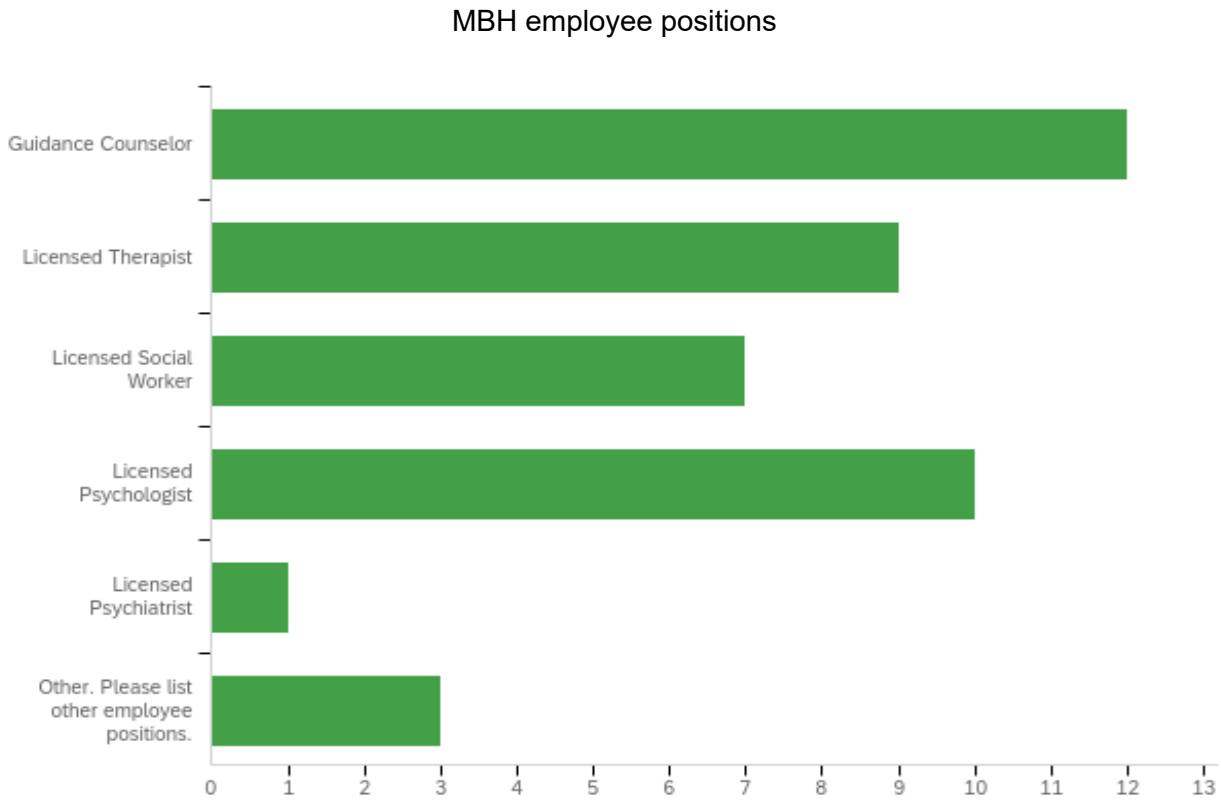

Figure 12: MBH employee positions district representatives reported using to provide MBH services to students

Needed resources from health system

In addition, district representatives were asked what resources they needed from pediatric mental health providers and a pediatric health system to help educators and their students achieve their goals. Participants widely reported a desire for trauma-informed trainings for their students and educators, along with streamlining the processes and communication between educational and medical systems when students enter various levels of care – including when students create clinical treatment plans with a MH professional. In addition, the majority of participants highlighted the wait-time for students to acquire MBH services as being too long, thus not meeting their students' MBH needs in a timely or effective manner. These results reinforce the

crucial need for healthcare systems to increase their workforce efforts to address school mental health service gaps and develop effective community service referral processes within comprehensive school mental health systems (NCSMH, 2020c).

Tier III Intervention Barriers (NCSMH Treatment Services & Supports)

The following results address the research question, "*What barriers do K-12 public school districts experience when providing treatment services and supports to students?*" One quantitative, categorical variable (MBH barrier interventions) measured participants reports in NCSMH's treatment services and supports domain. See Figure 13 for a histogram representing participants responses to the survey question, "Are there barriers for students in your district to access mental health services?" Although one district reported no barriers, the large majority - 11/12 - of participants reported that barriers still exist for their students to access MH services. Reported barriers include: the lack of specialized MBH treatment providers; workforce and capacity issues within the current educational and medical systems; inadequate MBH funding; access limitations due to participating districts' geographic location; struggling to acquire the necessary parental permission/consent paperwork; lack of parental mental health literacy and follow through after educators refer student to MBH services; lack of dedicated, local mental health facilities; limited ability for some parents to pay for needed MBH services; insurance red tape; long wait times for students to see MBH providers; the stigma associated with accessing MBH treatment; and transportation issues for some families. These data expose two important issues in SMH: 1) Participants overwhelmingly experience barriers when working with students who attempt to access MBH services, and 2) Participants report critical healthcare workforce and treatment service gaps that need to be addressed to alleviate barriers related to MBH service capacities across the continuum of care (NCSMH, 2020b; 2020c; 2020d).

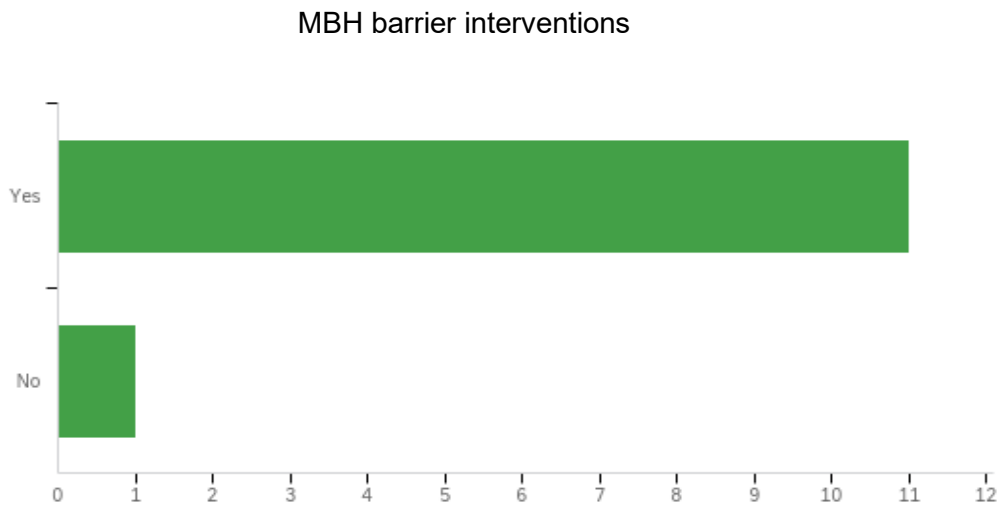

Figure 13: Participants responses to the survey question, “Are there barriers for students in your district to access mental health services?”

See below for emergent themes in three qualitative areas (Access interventions, Recommendations for overcoming barriers, Investment ideas for MH projects) that provide a variety of barriers and solutions related to reports in NCSMH’s funding and sustainability domain.

Access interventions & recommendations for overcoming barriers

The primary barriers reported by district representatives were: 1) the school demand for quality MBH providers is greater than the current supply, 2) MH stigma exists as a barrier for some students to access MBH treatment services, 3) issues with finances and insurance hinder many families from paying for indicated student MBH treatment services. The findings of this study include multiple participant reports that families are not consistently accessing mental health services due to financial limitations, insurance red tape, and poor mental health literacy – e.g., many parents do not sign the necessary consent paperwork for their child to be seen by a MBH provider and/or release(s) of information so that MBH providers can regularly communicate with educators. For example, district representatives report that students and families may underutilize available MBH services due to a lack of health literacy – e.g., the parents of school-age students have diverse perspectives of mental health and illness. Finally, participants reported the current wait-time for students to access mental health services is not timely due to healthcare workforce shortages and a lack of quality providers who work well in the educational setting. See below for two quotes from participants that summarize the importance of addressing parental financial

concerns and developing trusting relationships between educators, families, and community partners. District representatives highlighted the importance of relationship building and trust between their educators, and the student families they serve, especially in the context of MBH referrals. All participants report that trusting relationships are a critical foundation when educators need to discuss student MBH issues, including the stigma of mental illness. One participant stated:

"If the family has a negative relationship with the school and with the school environment, then they're less likely to engage with a service that's in the school. But if they have a positive relationship, and we [i.e., educators] build some of that trust [with students and their parents], that allows [students and parents to… engage with these other services. [If] we just send them [to an off-site service and say] okay, go call [e.g., indicated Family Service], schedule your appointment… [Parents are] not going to do that." (District G Representative)

Another participant provided an explicit example of a widespread barrier – i.e., the stigma associated with having and accessing treatment to manage symptoms of mental illness - reported by district representatives that students and their families experience when engaging with MBH providers in educational, medical, or community settings. As demonstrated in the quotation below, research participants report that social and cultural stigmas related to mental illness exist in their districts' communities. In other words, district representatives report that a powerful barrier still hinders their districts' students to seek professional MBH support to intervene with mental health symptoms that are impeding their biological, psychological, social, or educational growth. One participant compared a mental illness diagnosis to car repair diagnosis:

"[Having mental illness is] just a stigma that… you're like, less of a person because you go seek help. You know, it's very simple, I guess if your car needs cared for and taken care of [you take it to a car repair shop]… correct? (District C Representative)

Investment ideas for MH projects

The majority of participating district representatives reported a desire to hire more mental health providers to address current student MBH needs. In general, participants reported a desire to incorporate more trauma-informed trainings for students and educators and to integrate social emotional learning curriculum into their core curricular activities. An overwhelming majority of

participants reported mental health professionals are not accessible to serve students and school personnel in a timely manner, even for consultation purposes. Finally, the majority of participants also mentioned the importance of integrating mental health professionals and other community partners into their districts' strategic planning processes. See below for three interview quotations from $Study_3$ that shine a light on three key areas that district representatives reported. If addressed, all three areas would align participating district activities with NCSMH's (2020b; 2020c; 2020d) treatment services & supports; funding & sustainability; and teaming domains. District representatives reported that their K-12 schools are impacted by the current shortage of MBH professionals in their communities who understand the unique needs of K-12 students and work effectively within educational systems. In other words, the overwhelming majority of participants reported that student MBH needs are greater than the current MBH workforce capacity. One participant shared a commonly reported observation:

"Everybody wants more people that are trained professionals that will be able to have sliding scale fees for families and can provide those ongoing therapies [i.e., MBH services and supports]." (District G Representative)

The quotation below highlights another pressing issue reported by the majority of district representatives: students are not consistently receiving timely intervention when MBH treatment is indicated. $Study_3$ participants also noted that their educators face more classroom disruptions when students are not receiving adequate MBH treatment services and supports.

"Continued mental health support and practitioners [are needed] with availability to support students and families. I think we have kids that go [and] get seen once, or they go to [a local hospital that specializes in acute mental healthcare services] and… can't get in for six months…or we're like, hey, you need to go get additional supports, and they can't get psychiatric, mental health services and supports." (District D Representative)

Finally, some district representatives are acutely aware of the MBH workforce shortages in their communities and how these shortages impact student mental health in a negative way. One participant bluntly stated:

> *"Well, the fact that a psychiatrist takes months to get on his or her list to be seen, is obscene." (District B Representative)*

Community Partnerships (NCSMH Teaming)

The following results address the research question, "*What community partnerships do districts utilize to provide treatment services and supports to students?*" One quantitative, categorical variable (Satisfaction with auxiliary services) measures participants reports in NCSMH's treatment services and supports domain. Perceived satisfaction with MBH treatment services influences how K-12 school districts pursue, develop, use, and sustain community partnerships (US Department of Education, 2021). See Figure 14 for a histogram representing participants responses to the survey question, "How satisfied is your district with auxiliary services provided to your students who access mental healthcare?" Nine participants reported being "satisfied" or "very satisfied" with the auxiliary services provided to their students by their MBH community partners. This result demonstrates that the majority of participants have: 1) systematic protocols established for emotional and behavioral crises, and 2) satisfaction with their referral process to link students with local MBH service providers (NCSMH, 2020b: 2020c). For the two participants who responded "neutral" and "very unsatisfied", there is a clear opportunity to improve school-community partnerships (NCSMH 2020c).

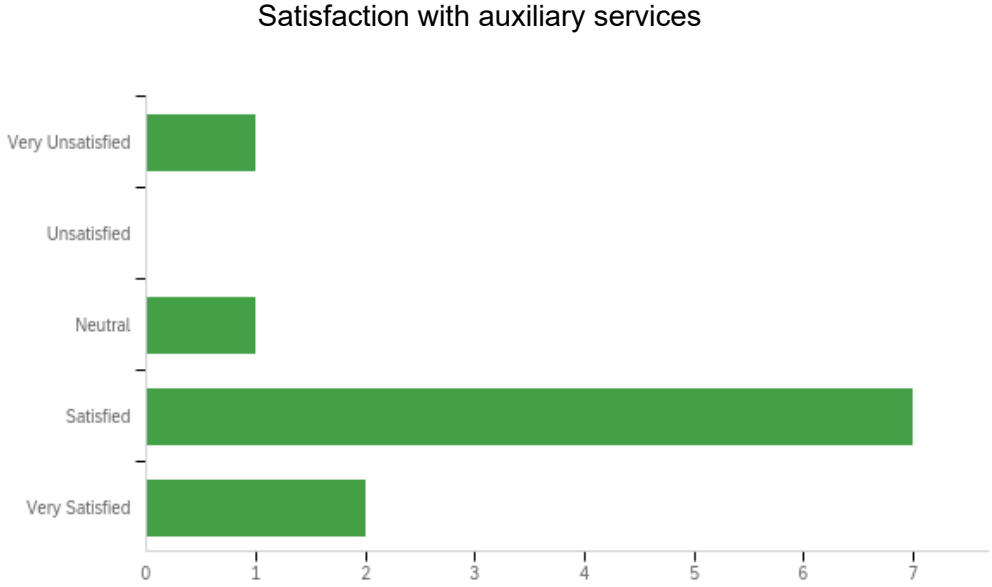

Figure 14: Participant responses to the survey question, “How satisfied is your district with auxiliary services provided to your students who access mental healthcare?”

In addition, see below for quotations and emergent themes in three qualitative areas (Community partnerships, Effective partnerships, Perceived system effectiveness) to provide depth to participants reports in NCSMH’s teaming domain.

Community partnerships, effective partnerships, perceived system effectiveness

District representatives generally report that community partners provide critical treatment services to districts, including on-site and off-site clinical support. In addition to individual and small group therapy services, formal partnerships between educational and medical systems streamline the communication required for timely treatment services. Participants reported that community partnerships are most helpful when representatives from community entities engage with their districts’ strategic planning process over time and participate in open communication when issues arise. These reports align with NCSMH’s (2020d) funding and sustainability domain encouraging districts to maximize the expertise and resources of SMH partners and establish a collaborative process to develop, evaluate, and update SMH financing plans. See below for four

quotations that describe the complex relationship between Tier III barriers, resource limitations, and how improving mental healthcare workforce issues could address the current treatment service gaps K-12 district representatives report experiencing. Some K-12 district administrators report experiencing resource limitations and an inability to budget for MBH professional services in the schools their district serves. For example, administrators report that hiring more teachers to keep teacher:student ratios reasonable in their district classrooms are far more important than placing an MBH professional in the school setting. In other words, some district representatives report the system is not successfully addressing current student MBH need. One participant transparently reported:

"I can't hire a social worker… I have to hire a teacher because I have 400 kindergarteners. And I can't have classrooms of 35… That's not gonna fly here. I've got to hire a teacher. That's what the community wants. The community doesn't want a social worker behind the scene that's not being seen. [The community] doesn't want to see 35 kids in an elementary classroom." (District A Representative)

Additionally, many $Study_3$ participants reported the value of developing partnerships with community MBH providers, including local medical systems – e.g., acute care hospitals. In particular, district representatives noted the importance of developing working relationships with medical staff to help streamline data sharing processes between medical and educational systems. For example, one participant stated:

"When you have the partnerships in place, there's a little bit more of an expectation to follow up with us [i.e., school administrators] as to where [the student] discharged… Are they still in services? Was it successful? And all that [information sharing] is with parent permission to release whatever information [the parents] allow the providers to release. So for me, that's the advantage of the partnerships, because [we] get to know the particular staff on the other end well." (District G Representative)

Finally, the quotation below summarizes the practical and common viewpoint reported by many district representatives that K-12 administrators greatly appreciate consistent and timely communication by MBH providers when one of their students is receiving MBH treatment. In other words, when MBH providers have a

release of information signed and can openly communicate with educators, it improves student MBH outcomes. One participant eloquently summarized a description of a "working" system:

> *"What we would see as clear evidence that we have a system that is working is any child who's seen by an outside therapist, the school gets a release of information signed in that clinic, and we [educators] get contacted, so we're able to collaborate with [the] therapist [to] support [the student's] treatment plan in school. That would be clear evidence to me that we have a system that's working much better." (District D Representative)*

Discussion

What Study$_3$ Adds to Literature

Case Study$_3$ highlights a handful of critical SMH issues and adds to the national literature by describing how public K-12 school districts in a major Midwestern metropolitan area are collectively impacted by the current mental healthcare workforce shortage (Fish & Mittal, 2021). In other words, Case Study$_3$ highlights a local need to produce more quality mental health professionals prepared to work in public K-12 school districts. Nationwide, there is a mental healthcare workforce shortage (Auerbach & Miller, 2020) and the US Surgeon General (2021) and Department of Education (2021) both released public documents to help educational and healthcare systems work together to address this critical issue. Across the US, caregiver burnout (Thomas, 2022) impacts K-12 districts' access to timely service and school-based trauma treatments – e.g., SSET, Bounce Back (Bekele et al., 2022), yet various strengths-based approaches (Barone & Young, 2022), family-school partnerships, resilience building interventions (Francoeur & Malloy, 2022), and collaborative communities (Gildea et al., 2022) scaffold Tier III services and supports (Garbacz et al., 2022). In other words, many public K-12 school districts are "making it work with what they've got."

Another compelling result of Case Study$_3$ is that NCSMH's (2020b; 2020c; 2020d) domains encourage districts to enhance their ability to treat K-12 students with the highest mental health needs by developing strategic and sustainable school-community partnerships. Specifically, NCSMH (2020e) has developed a repository of resources designed to help districts develop sustainable partnerships to provide mental health treatment concomitant to student need. Furthermore, half of district

representatives reported that their respective districts do not have adequate resources to address current student MH needs, aligning with multiple studies across the US that highlight the challenges mental healthcare service leaders face to address workforce shortages (Fish & Mittal, 2021). Although one district reported being able to provide their students with a full continuum of MBH support, the overwhelming majority of participants stated an urgent need for shorter wait-times for students who are attempting to access MBH service providers.

Emergent Themes

Many participants reported numerous barriers they experience when helping students access MBH treatment services, including provider access limitations, MH stigma, insurance red tape, and lack of parental mental health literacy. These documented barriers are commonly reported in studies across the US (DHHS Office of Disease Prevention and Health Promotion, 2021; Gustafson et al., 2021; Chadwick and Collins, 2015; West et al., 2011; Mollah et al., 2018; NE DHHS Div. of PH, 2021; Radez et al., 2020). Again, Case Study$_3$ results reinforce the crucial need for healthcare systems to increase their workforce development efforts to address school mental health service gaps and invest in the infrastructure needed to develop comprehensive school mental health systems (NCSMH, 2020c).

Recommendations

1. *There are not enough MBH service providers available to public K-12 school districts.*

This compelling theme emerged from Case Study$_3$. The overwhelming majority of participants reported that their students experience access barriers and long wait times due to the lack of local MBH service providers. The nation-wide shortage of MBH professionals is well-documented (Fish & Mittal, 2021; Auerbach & Miller, 2020) and efforts to address service delivery gaps to special populations exists at a national level (US Surgeon General, 2021; Department of Education, 2021; Healthy People 2030, 2022a; NCSMH, 2020c).

2. *Stigmas about mental health exist and negatively affect comprehensive school mental health systems.*

This theme documents the on-going barrier of stigma related to mental illness – as reported by participants of the Case Study$_3$. K-12 school districts and the communities they serve perceive mental health and illness on a continuum (Chadwick and Collins, 2015; West et al., 2011; Mollah et al., 2018) based on their unique life experiences, cultural identities, and environmental stressors. Some K-12 students do not accept the definitions of mental health disorders within the Diagnostic & Statistical Manual of Mental Disorders and use dysfunctional behavioral patterns to cope with their MH symptoms (Radez et al., 2020).

Limitations

Case Study$_3$ has a number of limitations, including the fact that the study examined pre-existing data initially collected to respond to a community-driven need. Furthermore, Case Study$_3$ is limited to the reports of the district representatives whom their respective superintendents identified as MBH experts: the experiences of students, their families, and other educators are not considered. Finally, Case Study$_3$ addressed the research questions related to the resources district representatives report using, the interventions the participants report implementing, and the partnerships utilized to provide mental health treatment to K-12 students.

Additional Research Needed

Funding and additional research is needed to assess the implementation of comprehensive mental health systems, including how MBH providers can be effectively integrated into the K-12 school setting often limited by local mental healthcare resource scarcities (Alegría et al., 2018; DHHS, 2021;

Healthy People 2030, 2022c; Colucci & Lean, 2010). Finally, Case Study$_3$ results reinforce the importance of academicians across the US to support K-12 school district efforts to develop iterative implementation studies that improve comprehensive systems of care and maximize local MBH resources (NCSMH 2020b; 2020c; 2020d). Finally, these results highlight the importance of K-12 district to develop and sustain effective school-community partnerships that intentionally solicit feedback from diverse stakeholders – i.e., students, parents, educators, healthcare professionals – to improve communication processes between educational and medical systems; create social and emotional learning opportunities for students, parents, educators, and MBH providers; increase the use of evidence-informed services that match the unique strengths and cultural/linguistic context of individual schools within districts; and enhance collaborative activities within local communities to sustain comprehensive systems of care (NCSMH, 2020a-d).

Conclusion

Not surprisingly, many schools prioritize academic outcomes over mental health outcomes (Adelman, 2002). On one side of the conversation, health promotion and preventative school-based mental health programming are viewed by educators as activities which remove biological, psychological and social barriers students have to be "ready" to learn academic subjects (Adelman et al., 1999). Other educators, students, families, and communities embody a spectrum of cultural norms, some of which hold alternative understandings of mental health (Gopalkrishnan, 2018) and prioritize academic outcomes over mental health outcomes. In general, preventative mental healthcare services – e.g. screening and referral services – are provided by a school staff member and specialty services are provided by healthcare providers outside of the school system (Smith et al., 2020). Even before the COVID-19 pandemic, many public K-12 schools in the United States struggled to effectively prioritize and integrate social emotional learning (Barrett et al., 2013) within the already packed-and-pressured "school day" which emphasizes outcomes in academic priority areas – e.g. literacy and math (Arora et al., 2016).

What Dissertation Adds to Literature

Informed by the current literature, the research team designed a survey and interview protocol to highlight current SMH practices in twelve public K-12 school districts in a large Midwestern metropolitan area and expose any research-to-practice gaps that exist between the participating districts reported SMH practices and three evidence-informed domains: interventions, community partnerships, and resources (NCSMH, 2020a-d). The three case studies provide information about several resources districts report using, evidence-informed practices that district representatives report utilizing within each of the three MTSS intervention tiers, and describe how certain community partnerships can catalyze and/or remedy the barriers that commonly occur when educational and medical systems interact (Lucas, 2019; Shelton and Owens, 2021; Kaufman et al., 2015; Woodbridge et al., 2015; Bruhn et al., 2014; Green et al., 2016).

Case Study$_1$ fills an important research-to-practice gap in the national literature by highlighting how public K-12 schools districts in a large Midwestern metropolitan area employ mental health promotion intervention best practices and approach strategic planning activities between educational, medical, and community stakeholders. Case Study$_1$ participants generally reported alignment with NCSMH (2020a; 2020c; 2020d) domains regarding their mental health promotion services and supports, teaming, and funding/sustainability activities. In particular, many districts reported already using SMH intervention best practices - e.g., the widespread use of SEL curricula - and gaps emerged where participating districts can improve their use of evidence-informed mental health promotion activities (Healthy People 2030, 2022b). In

addition, participants highlighted the importance of establishing formal partnerships with a diverse set of local community service providers as being critical to their districts' success to adequately address student MH need, which aligns with NCSMH's (2020a; 2020c) Tier I and teaming domains. Nevertheless, there is an on-going need in K-12 public education to ensure sustainable funding streams that increase the prevalence of trauma-informed schools and organizational capacity for mental health promotion efforts (Community Preventive Services Task Force, 2019a & 2019b).

Identifying the variety of universal mental health screening practices by public K-12 school districts in a large Midwestern metropolitan area is the most critical research-to-practice gap filled by Case $Study_2$ (Cook et al., 2015; Miles et al., 2010). Notable differences emerged between district representatives in how they identify students with MBH needs, match appropriate services to student needs, and partner with local community entities to provide early intervention services and supports to their students (Connors et al., 2020; Husabo et al., 2020b; Whitaker et al., 2018). A prime example of this between-district variability is in participants' reported use – or non-use – of universal MBH screening activities. In alignment with multiple studies (Garbacz et al., 2021; Childs-Fegredo et al., 2021; Briesch et al., 2018), half of the participating districts reported community buy-in to implement the use of universal screeners, but half did not. Although MBH screening is a recommended best practice (NCSMH, 2020b), not all district representatives, schools, or communities are in support of universal screening activities. Addressing the variation of early intervention services and supports is critical to highlight and a recommended area for future research (Kilpatrick et al., 2021; Dart et al., 2019; Husabo et al., 2020a).

Finally, Case $Study_3$ highlights a handful of critical SMH issues and adds to the national literature by describing how public K-12 school districts in a major Midwestern metropolitan area are collectively impacted by the current mental healthcare workforce shortages (Fish & Mittal, 2021). In alignment with reports across the US, half of district representatives reported that their respective districts do not have adequate resources to address current student MH needs and need additional support (US Surgeon General, 2021; US Department of Education, 2021; Miles et al., 2010; Schwean and Rodger, 2013; Larson et al., 2018). Although many districts are "making it work with what they've got," one compelling result of Case $Study_3$ is that NCSMH's (2020b-d) domains highlight the importance of districts to collaboratively develop strong and sustainable school-community partnerships moving forward. In alignment with the current literature, many participants reported numerous barriers they experience when helping students access MBH treatment services, including limited access to quality MBH providers, MH stigma, insurance red tape, and lack of parental mental health literacy (DHHS Office of Disease Prevention and Health Promotion, 2021; Gustafson et al., 2021; Chadwick and Collins, 2015; West et al., 2011; Mollah et al., 2018; NE DHHS Div. of PH, 2021; Radez et al., 2020). Finally, Case $Study_3$ results reinforce the crucial need for healthcare systems to increase their workforce

development efforts to address school mental health service gaps (Healthy People 2030, 2022a) and invest in the infrastructure needed to develop community-wide school mental health systems (NCSMH, 2020c).

The results of the case studies identified research-to-practice gaps that exist in public K-12 school districts in a large Midwestern metropolitan area. In other words, the three case studies identified current SMH practices and diverse funding resources (NCSMH, 2020a-d), evidence-informed intervention frameworks (Hoover et al., 2019; PBIS Center, 2020) and universal school-based preventative programming (Community Preventive Task Force, 2019b) that participants report using to effectively integrate mental health services into the K-12 school environment (Adelman and Taylor, 2021; NCSMH 2020a-b). Most importantly, the case studies highlight a critical need for healthcare systems to increase their workforce development efforts to address school mental health service gaps (Healthy People 2030, 2022a) and utilize the diverse funding streams required to develop comprehensive systems of care (NCSMH, 2020c).

Common Themes

The series of three case studies use a triangulation mixed methods design to compare the identified school-based mental healthcare service practices in a large Midwestern metropolitan area to three evidence-informed domains from the National Center for School Mental Health (NCSMH): interventions, resources, and community partnerships. After considerable efforts to gather input from educational leaders across the national, NCSMH developed evidence-informed domains related to funding and sustaining MTSS Tier I, Tier II, and Tier III school-based mental health services, including a domain that addresses the concept of “teaming” which guides schools towards addressing mental health stigma and developing sustainable community partnerships to address student mental health (NCSMH, 2020a-e). The following six recommendations emerged from the three case studies:

Recommendations

1. *There are not enough MBH service providers available to public K-12 school districts.*

   This compelling and overarching theme emerged from the three Case Studies. The overwhelming majority of participants reported that their students experience access barriers and long wait times due to the lack of local MBH service providers. The shortage of MBH professionals is well-documented (Fish & Mittal, 2021; Auerbach & Miller, 2020) and efforts to address service delivery gaps to special populations exists at a national level (US Surgeon General, 2021; Department of Education, 2021; Healthy People 2030, 2022a; NCSMH, 2020c).

2. *Professional development is needed to improve student mental health outcomes.*

This theme highlights the importance of on-going professional development that is relevant and useful for the teachers, staff, and school administration teams that serve K-12 students. Similar to national trends, participants reported that many educators, students, and families still believe mental illness carries a stigma (Radez et al., 2020; Bynum & Sukhera, 2021; Clark et al., 2013) and the majority of participants desire trauma-informed trainings to be offered to their educators to enhance the learning environment in K-12 schools (von der Embse et al., 2019; Overstreet, S., & Chafouleas, S. M., 2016; Kameg & Fradkin, 2020; Community Preventive Services Task Force, 2019a & 2019b; Berger, 2019).

3. *Tier I mental health services and supports (e.g., Social Emotional Learning curricula) complement Tier II (early intervention services and supports) and Tier III (treatment services and supports) efforts.*

This theme describes the importance of K-12 school districts to acquire sufficient resources to effectively integrate the three MTSS tiers of support. The NCSMH (2020a-e) domains were explicitly created to support districts to develop comprehensive school mental health systems that sustainably support the MBH needs of K-12 students. Studies across the US continue to offer solutions to address the systematic barriers that hinder effective interactions between educational and medical systems (Shelton and Owens, 2021; Lucas, 2019; Kaufman et al., 2015; Woodbridge et al., 2015; Bruhn et al., 2014; Green et al., 2016).

4. *Stigmas about mental health exist and negatively affect comprehensive school mental health systems.*

This theme documents the on-going barrier of stigma related to mental illness – as reported by participants of the three case studies. According to their worldview and life experiences, people perceive mental health and illness differently (Chadwick and Collins, 2015; West et al., 2011; Mollah et al., 2018). Significant amounts of K-12 students across the globe avoid sharing their mental health symptoms with others, and/or create dysfunctional behavioral patterns to cope with their MH symptoms (Radez et al., 2020). In the worst case scenarios, students die by suicide or harm others because they do not receive the MBH treatment they need (Yard et al., 2021; Kalb et al., 2019).

5. *Communication pathways between educational and medical systems need to be improved.*

   Another cross-cutting theme emerged from the three case studies related to the lack of effective communication between educational and medical systems. Systematic barriers are well-documented (Lucas, 2019; Shelton and Owens, 2021; Kaufman et al., 2015; Woodbridge et al., 2015; Bruhn et al., 2014; Green et al., 2016) and interventions to improve communication – e.g., the development of diverse community partnerships and comprehensive mental health systems – are recommended (Hoover & Bostic, 2021; NCSMH, 2020d-e; US Surgeon General, 2021; US Department of Education, 2021)

6. *Every district representative reported using a unique constellation of resource referrals, therefore creating an accurate inventory – i.e., a resource map – of community-wide mental health resources that are relevant to K-12 comprehensive school mental health systems is indicated.*

   This theme highlights the ingenuity of study participants and the patchwork nature of resource gathering that many educational administrators utilize to meet the needs of K-12 students. Alongside developing sustainable partnerships with local healthcare systems and community agencies, districts are recommended to maximize available federal, state, and private resources (US Department of Education, 2021; US Surgeon General, 2021; Lucas, 2019; Shelton and Owens, 2021). In addition, there are now tools available to help district administrators to systematically identify and update available resources – e.g., housing, economic, food security, dental, medical, and MBH resources (NCSMH, 2020f).

Limitations

The three dissertation studies are limited by a number of factors. First, the three case studies focus only on the perspective of public K-12 school district representatives. The studies targeted district representatives who were identified by the PI as MBH experts and do not include the perspectives of teachers, students, and/or families, all of whom are inevitably involved in school mental health issues. Next, the case studies utilized pre-existing data that was initially collected for a different purpose – i.e., a community-driven need to identify local SMH practices. Finally, the case studies were only designed to identify SMH practices reported by participants and compare the reported practices to three evidence-informed domains – i.e., the studies were not designed to assess the effectiveness of participating districts' MTSS implementation activities or dissemination of evidence-based practices (NCSMH SMH-QA, 2021).

Additional Research Needed

Using MTSS as an intervention framework and SHAPE as a systematic measurement system, multisite research is still needed in communities across the nation to identify what resources K-12 school districts use, what interventions they implement when developing comprehensive school mental health systems, and the types of creative partnerships districts use to promote positive student mental health and adequately address student mental health early intervention and treatment needs (NCSMH, 2022). Obviously, local socio-cultural context impacts the development of comprehensive school mental health systems (Hodges et al., 2010; Miller et al., 2012; Schwean and Rodger, 2013), and identifying a diverse constellation of financial resources is particularly important to public K-12 school districts as they integrate mental health curriculum into their current data collection systems (NCSMH, 2020d) because - in general - if 15-20% of students are getting office referrals, it behooves a school district to invest in universal, preventative curriculum (Reinke, 2006). Finally, additional research is indicated for interested districts to use NCSMH's National School Mental Health Quality Assessment (SMH-QA), a tool available to: 1) "assess the comprehensiveness of a district's school mental health system," and 2) "identify priority areas for improvement" in their district's MTSS (NCSMH SMH-QA, 2021).

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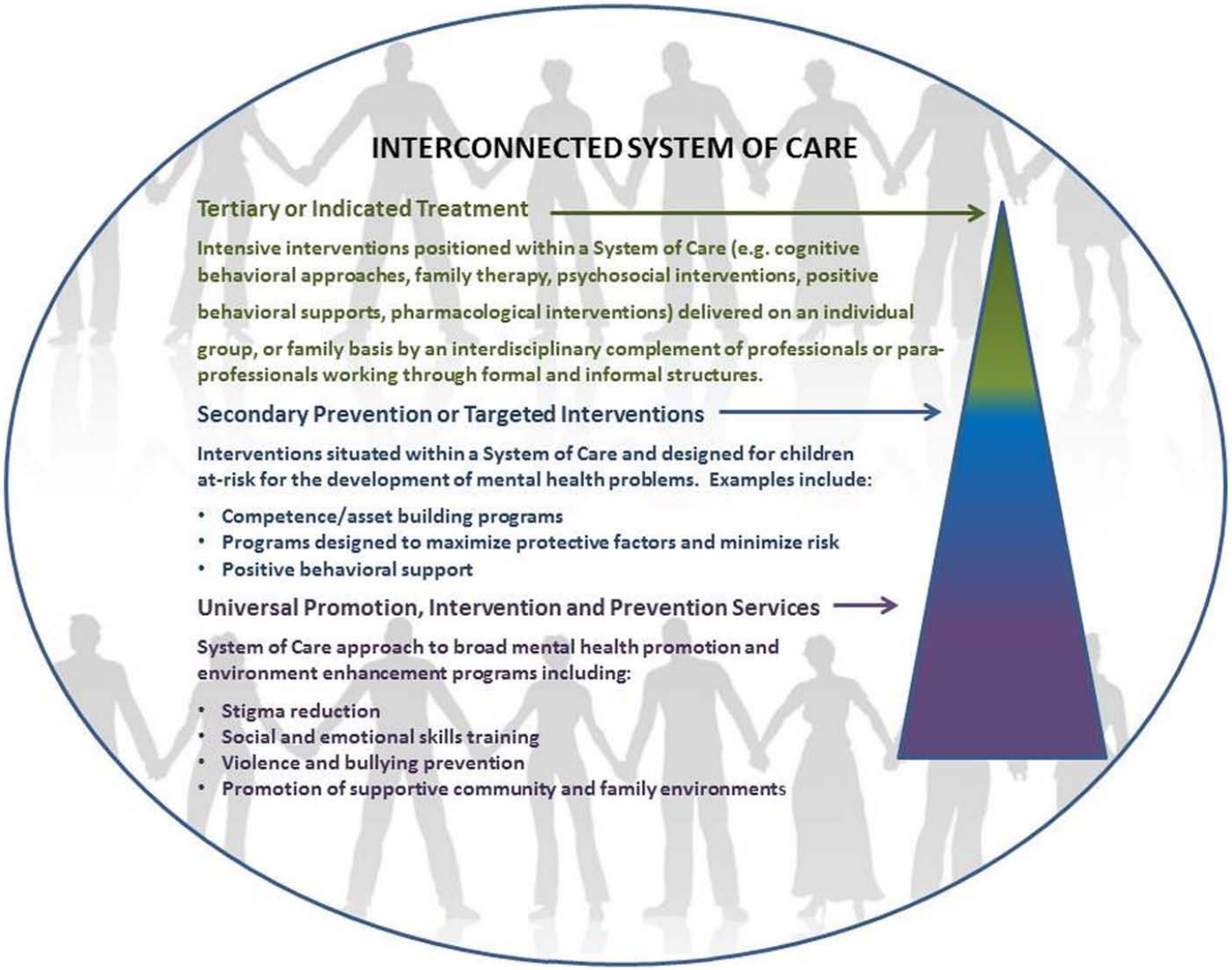
Appendices

Appendix A - The state of Nebraska divided into six regions of mental/behavioral health care provision (NE DHHS Div. of BH, 2021).

Appendix B – Interconnected System of Care (Schwean & Rodger, 2013)



Appendix C – Mental Health Initiative Survey

Please answer the following questions related to your school district.

SQ1 (Demographic Information)

- First Name _____
- Last Name _____
- School District _____
- Current Position _____

SQ2 (MH priority areas): What student mental health areas are highest priority in the upcoming 2021-2022 academic year? Please click and drag the following mental health areas to rank their priority.

Rank #1 = highest priority

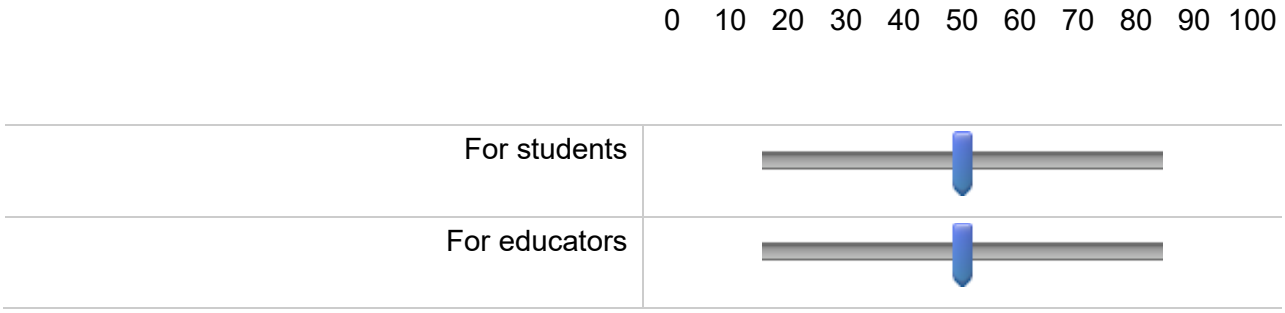
Rank #9 = lowest priority

_____ Suicide Prevention
_____ Violence/Aggression
_____ Bullying
_____ Anxiety
_____ Depression
_____ Substance Use
_____ Stress Management
_____ Preventative Programming (e.g. mindfulness, social emotional learning)
_____ Other

SQ3 (Impact of MH on Learning Environment): How much do student mental health issues impact the learning environment?

0 = No impact at all

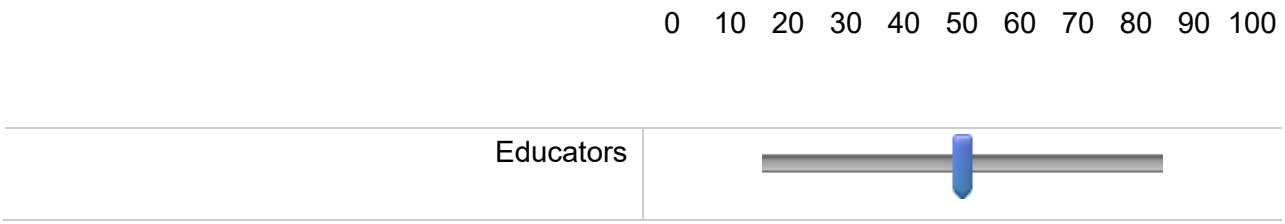
100 = Learning environment is severely impacted by student mental health issues



SQ4 (Educator MH knowledge): In general, how well informed are your educators on the identification of possible student mental health issues?

0 = Not informed at all

100 = Extremely informed



SQ5 (Process to distinguish MBH issues): How does your district distinguish between student behavioral issues and student mental health issues?

_____

SQ6 (MBH employee positions): What employee positions does your district have to provide mental health services to students? *If the position titles you use are different than the positions listed, please include the position titles you use in the box under the most relevant employee position below.*

- ☐ Guidance Counselor _____
- ☐ Licensed Therapist

_____

- ☐ Licensed Social Worker _____
- ☐ Licensed Psychologist _____
- ☐ Licensed Psychiatrist _____
- ☐ Other. Please list other employee positions.

_____

SQ7 (MBH auxiliary services): What auxiliary services/community partners does your district utilize to provide mental health services to students?

- ☐ Medical (e.g. Charles Drew clinic)
- ☐ Nonprofit Social and Developmental Support (e.g. Completely Kids)
- ☐ Private Mental Health Provider (e.g. Arbor Family Counseling)
- ☐ Other. Please list other auxiliary services.

_____

SQ8 (Satisfaction with auxiliary services): How satisfied is your district with auxiliary services provided to your students who access mental healthcare?

	Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied
	○	○	○	○	○

SQ9 (MBH community partners): Please list all of the community partners with which your district has an official relationship to address student mental health issues (for example, an MOU).

_____

SQ10 (Process to identify MBH issues): Does your district have a process through which to identify student mental health issues? *If yes - please describe the process.*

○ Yes _____

○ No

SQ11 (MBH response options): What options are used in your district to respond to identified student mental health issues? *For example, referral to outside agency, remote learning options, suspension, etc.*

_____

_____

SQ12 (MBH barrier interventions): Are there barriers for students in your district to access mental health services? *If yes – please list potential barriers.*

- ○ Yes _____
- ○ No

SQ13 (SEL model): Does your district use a specific strategy or model (e.g., mindfulness or social emotional learning curriculum) that promotes mental well-being? *If yes, please describe.*

- ○ Yes _____
- ○ No

SQ14 (Willingness to collaborate with MBH providers): Would your district be willing to participate in virtual education sessions given by mental health providers on the identification and classroom management of mental health conditions?

- ○ Yes
- ○ No

SQ15 (Service unit funding): Does a Nebraska Educational Service Unit (ESU) or Iowa Area Education Agency (AEA) support your district to manage student mental health issues in your schools? *If yes - describe how.*

- ○ Yes _____
- ○ No

SQ16 (State funding): Does your district receive specific state funding to address student mental health issues? *If yes - please describe.*

- ○ Yes _____
- ○ No
- ○ Unsure

SQ17 (Federal funding): Does your district receive specific federal funding to address student mental health issues? *If yes - please describe.*

- ○ Yes _____
- ○ No
- ○ Unsure

SQ18 (Private funding): Does your district receive specific private funding to address student mental health issues? *If yes - please describe.*

- ○ Yes _____
- ○ No
- ○ Unsure

SQ19 (Adequate resources for MBH services): Does your district have the resources needed to provide adequate mental health services to students so they have the opportunity to participate and succeed in the learning environment?

	Definitely No	No	Neutral	Yes	Definitely Yes
	○	○	○	○	○

SQ20 (Impact of employee MH): How much do employee mental health issues impact your school district?

0 = No impact at all

100 = School district is severely impacted by employee mental health issues

	0 10 20 30 40 50 60 70 80 90 100
Impact to School District	

SQ21 (Employee MH services): What mental health services does your district offer to employees? *For example, does your district have an EAP?*

_____

SQ22 (EAP frequency): How often does your district utilize EAP (or other mental health services) for to support employees?

	Never (0 times per month)	Not Often (1 to 3 times per month)	Unsure	Often (4 to 10 times per month)	Very Often (11+ times per month)
	○	○	○	○	○

SQ23 (Satisfaction with employee MH services): How satisfied is your district with the mental health services it offers to employees?

	Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied
	○	○	○	○	○

Appendix D – Mental Health Initiative Interview Protocol

- **IQ1 (MH leadership):** Who is responsible for overseeing mental health initiatives for your school/district?
    - **IQ1a (MH identification process for students):** Describe what happens when an educator identifies a potential mental health issue for one of their students.
- **IQ2 (Most important survey question):** What survey question(s) stand out to you as the most important and why?
    - **IQ2a (Areas of MH concern):** What mental health conditions does your staff feel are prevalent in their classrooms? Is there one which causes more concerns for your educators?
- **IQ3 (Community partnerships):** In your survey response, you answered that your district works with agencies A, B, C.. Please describe how you work with these agencies.
    - **IQ3a (Effective partnerships):** Are there any of these partnerships that are more helpful or successful than others? Are there any changes that would make the relationships more effective?
    - **IQ3b (Perceived system effectiveness):** Do you feel the "system" works for you and your students? If not – why? If so, what is working?
- **IQ4 (Access interventions):** What barriers do your students have when trying to access mental health providers?
    - **IQ4a (Recommendations for overcoming barriers):** Do you have recommendations on how to overcome the barriers?
- **IQ5 (Needed resources from health system):** What resources do you need from pediatric mental health providers and a pediatric health system to help you and your students achieve the goals you have set?
- **IQ6 (Data to track MH improvement):** What data point(s) or accomplishments would make you feel that the district is improving success in dealing with mental health issues?
- **IQ7 (Investment ideas for MH projects):** What services, projects, or initiatives would you like to invest in (or invest more in) if your district received additional funding to address mental health for educators?
    - **IQ7a (MH identification process for students):** Describe what happens when a staff member identifies a potential mental health issue exists for one of their educators.
    - **IQ7b (Strategies for students with MH):** What strategies do you currently have in place to work with students experiencing mental health conditions?
    - **IQ7c (Educator professional development)**: What education has been done to prepare your educators to work with students impacted by mental health conditions?
- **IQ8** Is there any other aspect of mental health in schools that we have not yet addressed?