Mixed-methods investigation of a mental health literacy intervention with middle school educators

By

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Abstract

Educators have limited knowledge of youth mental health disorders, treatment, and school-based supportive strategies. Mental health literacy (MHL) interventions are designed to promote educator understanding of youth mental health. The Go-To Educator Training is a MHL intervention developed for educators. The current study extended research on the efficacy of the Go-To Educator Training by conducting a small randomized controlled trial with embedded mixed methods and virtual training delivery. We randomly assigned 34 middle school educators to treatment (n = 17) or waitlist control (n = 17). Participants' mental health knowledge, stigma, and self-efficacy were measured pre- and postintervention. We analyzed findings using multiple ANCOVAS from three approaches: intent-to-treat analysis using multiple imputation, intent-to-treat analysis assuming no change, and completer analysis. All approaches to the analysis found that after controlling for preintervention scores, participants who completed the Go-To Educator Training demonstrated higher postintervention MHL-ED knowledge ($p < .001$). There were mixed findings across analyses approaches for statistically significant impacts on stigma and self-efficacy measures. Six trained educators participated in semistructured focus groups or interviews. Coders used Qualitative Content Analysis to create main categories and subcategories. We integrated qualitative and quantitative results. Qualitative themes converged, diverged, and expanded upon the quantitative results by providing insight into the extent educators' noticed changes in their knowledge, stigma, self-efficacy, and behaviors. Educators endorsed that the training was socially valid, had many strengths, and areas for improvement.

Keywords: mental health literacy, educator training, school mental health

Chapter I: Introduction to the Study

Background

About 13% to 20% of children in the United States (U.S.) experience significant mental health symptoms that would qualify for a mental health diagnosis (Perou et al., 2013). Further, since the COVID-19 pandemic, youth have experienced dramatic disruptions to their everyday lives and global estimates suggest 1 in 4 youth experience clinically elevated depression symptoms and 1 in 5 experience clinically elevated anxiety symptoms (Racine et al., 2021). Concerningly, literature suggests that approximately half of children experiencing mental health disorder symptoms do not receive treatment (Whitney & Peterson, 2019). Consequences of insufficient mental health services have implications for the individual (e.g., poor educational attainment, physical health concerns, juvenile delinquency) and are of considerable monetary and societal cost (e.g., special education services, healthcare, juvenile justice services; Kern et al., 2017). The prevalence of mental health conditions and the gap between need and utilization of services for children and adolescents are public health concerns that require prevention and early intervention efforts (Colizzi et al., 2020).

Schools have been identified as a target context for mental health prevention and intervention to address the unmet mental health needs of children and youth (Atkins et al., 2010). Research finds that schools are the most common site where youth utilize mental health services (Green et al., 2013). Expanded school mental health (SMH) services can promote collaboration among school staff, community mental health professionals, and families to provide a comprehensive array of mental health supports and services (Weist et al, 2014). In the context of the COVID-19 pandemic, investing in SMH programs has been identified as a way to support student mental health globally (Hamoda et al., 2021). Before the pandemic, there were already

various initiatives in the U.S. promoting mental health services in schools (e.g., President G. W. Bush's New Freedom Commission on Mental Health, 2003; President Obama's Now is the Time initiative [U. S. Whitehouse, 2013]) and as schools reopened during the COVID-19 pandemic, the U.S. Department of Education (2021) recognized the continued need to support child and student social, emotional, behavioral, and mental health needs at school.

A dominant framework in the field of SMH is the public health framework of multitiered systems of support (MTSS), which includes prevention and intervention services for mental health across three tiers (Weist et al., 2014). The universal level (i.e., Tier 1) emphasizes the promotion of mental wellbeing and prevention of mental health problems for all students. Tier 1 supports may include school climate improvement efforts, classroom-based social emotional learning lessons, and mental health and wellness education for students and educators (National Center for School Mental Health [NCSMH], 2020). The second level of support is often referred to as targeted services (i.e., Tier 2) that are for students whose social, emotional, or behavior needs do not respond to universal approaches. Supports at Tier 2 might include small group interventions for students identified with similar needs or brief, low intensity classroom-based supports like a daily report card or home-school note system (NCSMH, 2020). Finally, the most intensive level of support services (i.e., Tier 3) are provided to students who require more intensive mental health services than are offered at Tier 2. This might include individualized counseling or more intensive interventions in the classroom (NCSMH, 2020). Foundational to SMH services are evidence-based practices, data-based decision making, implementation support, consultation, and collaboration across tiers (Eklund et al., 2020).

One universal, Tier 1 practice that could be included within multitiered SMH systems are trainings and interventions to promote the mental health literacy (MHL) of students, caregivers,

and school staff (NCSMH, 2020). MHL was originally defined as the "knowledge and beliefs about mental disorders which aid their recognition, management, or prevention" (Jorm et al., 1997, p. 182). Expanded conceptualizations of MHL highlight four central components: understanding how to optimize and maintain positive mental health, understanding mental health disorders and their treatments, decreasing stigma, and increasing help seeking efficacy (Kutcher, Wei, & Coniglio, 2016). MHL interventions and trainings have been described as a promising approach to promote recognition of early signs of mental health problems, knowledge of the types of help available, and how to access that help (Kutcher et al., 2013).

Statement of the Problem

Educator MHL and Roles in SMH

Educators are aware that students in their classrooms have mental health needs and that they play a role in supporting student mental health (e.g., Andrews et al., 2014; Mazzer & Rickwood, 2015; Reinke et al., 2011). Educators self-identify as being on the frontline of supporting student mental health (Beames et al., 2022). A meta-analysis of SMH interventions found that teachers were involved in about 40.8% of the mental health interventions evaluated, primarily at the universal level (Franklin et al., 2012). Increasing educators' MHL related to youth mental health concerns is proposed as critical also due to the gatekeeping role adults often play in supporting students to utilize mental health services in and outside of school (Stiffman et al., 2004). Educators are in a unique position in schools in that they have extensive day-to-day contact with students, which are opportunities to identify students exhibiting signs of mental health problems (Gibson et al., 2014). In interviews with teachers, researchers identified a theme of identification and assessment of mental health problems as an aspect of teachers' roles in SMH as they can help to identify small changes in student behavior early and monitor changes as

they see students daily (Beames et al., 2022). Further, teachers shared that part of their role is to help with referral processes, with a key pathway being between the teachers and school-based mental health professionals like school counselors (Beames et al., 2022). Some of the other roles educators fill in promoting SMH practices include implementing classroom adaptations to support students and promote mental well-being, building relationships with students, following crisis response protocols, and collaborating with school and community mental health professionals (Semchuk et al., 2023). Although most educators understand that their jobs include supporting student social-emotional and mental wellness in addition to traditional roles of academic learning, educators have expressed a lack of clarity about their exact responsibilities (Beames et al., 2022; Graham et al., 2011; Phillippo & Kelly, 2014; Rothì et al., 2008).

Teacher preparation for their role in SMH to support students has the potential to begin in pre-service education (Weston et al., 2008). However, Brown et al. (2019) found that mental health-related certification standards and requirements for training in mental health-related interventions for teacher candidates are limited in state policy documents. Of the references that were specific to student mental health in the standards, most were generally phrased about the importance of mental health but did not outline clear actions for teacher education programs. In a recent survey, pre-service teachers indicated on average minimal levels of mental health training across six training areas, including internalizing concerns, externalizing concerns, environmental stressors, peer problems, trauma, and positive behavior interventions and supports (Brann et al., 2022). Pre-service teachers also reported an average of no training in the areas of mental health crisis and self-harm. Since teachers are often involved in the implementation of SMH practices but there are gaps in pre-service mental health education, it is critical to consider what in-service

trainings are needed to build teacher capacity to support the delivery of mental health supports for their students (Weston et al., 2018).

Educator MHL Interventions

In response to this recognized need for increasing educators' MHL due to their roles in supporting SMH and students receiving timely supports, there has been an increased focus on MHL interventions and trainings in the U.S. in recent years. Since 2013, there has been an annual federal initiative that provides grant funding for states and districts to provide MHL interventions for educators, parents, and other adults who interact with school-aged youth, among other SMH services (Substance Abuse and Mental Health Services Administration [SAMHSA], 2021). Further, the U.S. Department of Education (2021) recently described enhancing MHL as one of their key recommendations to supporting student social, emotional, behavioral, and mental health needs in the context of the COVID-19 pandemic. Since there are substantial resources and initiatives focused on MHL, it is important to consider the extent to which these interventions are effective at increasing educators' MHL.

Recent research has begun to address this empirical gap by reviewing literature on the effects of different MHL interventions for educators (Anderson et al., 2019; O'Connell et al., 2021, Sánchez et al., 2021, Yamaguchi et al., 2020). Overall, there are promising findings that suggest participating in MHL training is related to improvements in educator's mental health literacy-related outcomes (i.e., knowledge, attitudes, skills relate to mental health), yet there are limited findings on educators' experiences incorporating information from MHL interventions into their professional practices and the extent to which MHL interventions lead to educator behavior changes (see Chapter 2). Further, Weston et al. (2018) argue that to impact educator behaviors, researchers designing MHL interventions need to seek to understand educators

experiences, recognize educators as knowledgeable experts in understanding students, and utilize best practices for professional development.

Overview of Current Study

One of the few MHL interventions that has been created specifically for educators and offers support for their role within SMH is the Go-To Educator Training (Wei & Kutcher, 2014). The Go-To Educator Training was created for secondary school educators, working in junior or middle and high schools, in Canada. It is comprised of eight hours of content covering basic definitions of MHL, teachers' role in supporting youth mental health, pathways of mental health care, causes and basic epidemiology of mental health disorders, information about common mental health disorders, early identification strategies, treatment and supportive options in schools, and how to connect with caregivers to support student mental health (Wei et al., 2021). The creators of the Go-To Educator Training require fidelity to the core intervention content and suggest that interventionists should utilize their own pedagogical expertise and knowledge of local school communities to create engaging and relevant professional development experiences (Wei et al., 2021).

Prior evaluations of the Go-To Educator Training have found that from pre- to postintervention, educators have improved in their MHL knowledge and attitudes (i.e., stigma) and reported being satisfied with the training on survey-items (Kutcher & Wei, 2013; Wei & Kutcher, 2014; Wei et al., 2021). Although these findings provide initial support for the efficacy of the Go-To Educator Training, there is a need for research to further establish the evidence-base by evaluating additional outcomes of the intervention, such as impacts on educators' self-efficacy around supporting student mental health or behavior changes after the intervention. Further, a limitation of the existing support for the Go-To Education Training is that all prior

evaluations were conducted by the program developers and there is a need for replication by independent researchers. There is also a need to utilize qualitative methodology to gather educator perspectives about the social validity of the training and better understand their experiences incorporating information from the Go-To Educator Training in their professional practices. The first pilot investigation did include focus groups to gather feedback on ways to improve the intervention content, however that is only a limited component of educator experiences and much remains unexplored (Kutcher & Wei, 2013).

This study aims to replicate and extend findings of the prior evaluations of the Go-To Educator Training with middle school educators in the United States. The study is the first experimental investigation of the Go-To Educator Training and utilizes a randomized controlled trial experimental design with embedded mixed methods. There are three main goals, including to (a) better understand the impacts of the Go-To Educator Training on educator MHL outcomes; (b) gather educator perspectives on the social validity of the intervention; and (c) learn about educator experiences during and after the intervention. Following the guidance of the Go-To Educator Training developers, this study uses an adapted version of the Go-To Educator Training content to be more applicable to the U.S. context (e.g., changing Canadian prevalence statistics to U.S.) and the intervention sessions are implemented via an online format. Since the COVID-19 pandemic, the Go-To Educator has been implemented virtually on Zoom videoconferencing platform; however, the virtual delivery format has not been evaluated (MentalHealthLiteracy.org, 2022).

The quantitative component of this investigation examines educators' pre and postintervention survey-based measures of educator mental health knowledge, stigma, and self-efficacy used in previous research. Additionally, educators who participate in the intervention

completed postintervention social validity surveys. For the qualitative component of the study, educators who completed the intervention were invited to participate in follow-up focus groups or interviews to discuss their experiences with the interventions, intervention social validity, impacts of the intervention in their lives, and factors influencing the extent to which they incorporate information from the training into their professional practices.

Chapter II: Literature Review

In this chapter, a review of the literature explores the (a) background of MHL's history and construct development; (b) guiding theories and frameworks for MHL interventions with educators; (c) educators' mental health knowledge; (d) educators' stigma of mental health disorders; (e) educators' self-efficacy of mental health; (f) common MHL interventions for educators, their effectiveness, and educator experiences with MHL interventions; and (g) virtual professional development. After a brief summary of needed further research, the current study purpose and research questions are described.

Terms and Definitions

For this review, educators refer to school professionals and paraprofessionals whose job contributes to the education of students, including teachers, preservice teachers, special education assistants, student services staff, and school administrators. For this review, MHL interventions are defined as any educational program, training, or professional development focused explicitly on increasing MHL.

MHL Background

MHL originated from research on health literacy, which is "the degree to which individuals can obtain, process, understand, and communicate about health-related information needed to make informed health decisions" (Berkman et al., 2010, p. 16). Health literacy involves understanding one's own health, the health of one's family, the health of the community, and how societal and contextual demands influence health factors and decisions (Sørensen et al., 2012). The concept of health literacy is of interest to public health researchers, practitioners, and policymakers because it is related to health outcomes and access (e.g., Berkman et al., 2011; Levy & Janke, 2017); for example, the U.S. has a *National Action Plan to*

Improve Health Literacy (U.S. Department of Health and Human Services, 2010). Health literacy promotion interventions have been developed that target clinical and community populations (Nutbeam et al., 2018; Sheridan et al., 2011).

Jorm et al. (1997) proposed that general health literacy did not adequately include the knowledge and beliefs needed to aid in the recognition, management, or prevention of mental health disorders. They proposed that MHL was a discrete sub-discipline of health literacy with seven primary components: recognition of mental health disorders, knowledge of how to seek mental health information, knowledge of mental health risk factors, knowledge of causes of mental health illness, knowledge of self-treatment, knowledge of available professional help available, and attitudes that promote appropriate help-seeking behavior. This definition is foundational, yet there have been changes to this definition over time. Jorm (2012) described that MHL is knowledge connected to the possibility of actions to benefit one's own mental health or the mental health of others. The key components Jorm described include knowledge of how to prevent mental disorders, recognition of when a disorder is developing, knowledge of help-seeking options and available treatments, knowledge of effective self-help strategies, and first aid skills to support others who are developing a mental disorder or are in crisis. The key difference in this description to the original is that it emphasizes that having MHL can lead to help and supportive behaviors rather than focusing solely on increasing knowledge and understanding.

A more recent expansion of MHL described four central components: understanding how to optimize and maintain positive mental health, understanding mental disorders and their treatments, decreasing stigma, and increasing help seeking efficacy (Kutcher, Wei, & Coniglio, 2016). One of the key changes in this description is the inclusion of an understanding and recognition of positive mental health indicators and well-being. This addition of information

about positive mental health and well-being to MHL aligns with the dual-factor model of mental health, where there are two separate but related continua of mental illness/mental health disorders and well-being (Greenspoon & Saklofske, 2001). For example, a child may experience symptoms of a diagnosable mental health disorder, but rate themselves as experiencing positive well-being due to effective mental health supports. Prior research supports this dual-factor model for mental health for children and adolescents (Antaramian et al., 2010; Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008; Thayer et al., 2020). This model emphasizes the importance of the promotion of well-being and positive mental health indicators along with the identification of and intervention for mental health problems in MHL (Kutcher, Wei, & Coniglio, 2016). This review will utilize the expanded conceptualization with the four core MHL components but recognizes that there is not consensus on MHL's definition among MHL researchers (Mansfield et al., 2020; Spiker & Hammer, 2019).

Guiding Theory and Frameworks

Theories and Intervention Research

In intervention research, theoretical frameworks can provide a systematic guide for intervention design, implementation, and evaluation (Fleury & Sidani, 2012). Theories can provide details on how to conceptualize the problem targeted by an intervention, delineate a target population and specify critical determining factors and conditions for the problem and intervention. An in-depth conceptualization of the problem is critical for identifying aspects of the problem with the potential for change, generating intervention strategies that are consistent with those characteristics of the problem, outlining a mechanism for change, and specifying desired outcomes of the intervention to evaluate. In the area of intervention science, researchers have called for summaries of theories of interventions to be published alongside evaluation

studies to help clarify the foci of interventions, who is likely to benefit from interventions, how the interventions work, and under what context and conditions (Sidani et al., 2020).

Ecological Systems Theory

Bronfenbrenner's (1977) ecological systems theory (EST) is foundational to understanding human development and can be utilized as a conceptual tool for public mental health interventions, like MHL promotion interventions (Eriksson et al., 2018). EST posits that human development consists of proximal processes of reciprocal interactions between an individual and aspects of their multi-layered environment over time (Bronfenbrenner & Morris, 2006). The layers of the environment from the innermost level to the outermost include: the microsystem, or the immediate environment and interpersonal relationships experienced by the individual; the mesosystem, or the linkages between microsystem settings; the exosystem, or settings that an individual is not directly involved in, but indirectly influence them; the macrosystem, or the overarching contexts such as the wider culture, including the attitudes and prevailing norms that permeate the other levels; and the chronosystem, or the consideration that there is change that happens over time for the individual and their environment (Bronfenbrenner, 1994). From this theoretical perspective, youth and their development are best understood when they are considered in relation to their layered context (Gutkin, 2012).

EST provides a broad conceptual framework that can be used to organize youth mental health promotion prevention and intervention efforts (O'Connell et al., 2009). From EST perspectives, interventions seeking to prevent or change aspects of youth behavior and development must focus on the broader social environmental system to be effective (Eriksson et al., 2018; Splett et al., 2021). This recommendation recognizes the potential influence of youth's multi-layered ecologies on their mental health and help-seeking, and that there are malleable

points for intervention within their ecology. MHL interventions on youth mental health targeting educators can be considered interventions targeting youths' microsystems and mesosystems with the potential of indirectly influencing youth mental health due to the relationship between youth and educators, along with the relationships educations have with the whole class of students, parents, and other school staff members.

EST also has relevant applications to the content of MHL interventions as a conceptual framework to understand the etiology of youth mental health and its determinants (Currie & Morgan, 2020). Understanding determinants of mental health is foundational to the original definition of MHL that included knowledge of mental health risk factors (Jorm et al., 1997) and is relevant for the more recent conceptualization in the component of understanding mental disorders and their treatments (Kutcher, Wei, & Coniglio, 2016). An ecological approach to mental health recognizes that determinants of mental health wellbeing and mental health disorders include individual, social, and societal environmental factors, and their interaction with each other over time (O'Connell et al., 2009). The known determinants of mental health, which may also be referred to as risk and protective factors, can be organized by levels of an individual's ecology from an EST perspective. Currie and Morgan (2020) conducted a scoping review on determinants of adolescent mental health using EST. For example, at the individual level, demographic characteristics like gender, racial, and sexual identity are related to mental health status, along with risk and health behaviors like physical activity, diet, electronic media use, and drug use. At the level of the microsystem, family relationships, school environment and teacher relationships, as well as peer relationships, are related to adolescent mental health. At the mesosystem, home-school connectedness is an example determinant of adolescent mental health. At the level of the macrosystem, child welfare policies are related to youth mental health. Not

included in the review by Currie and Morgan (2020), but important determinants are macrolevel systems and structures of oppression like structural racism, which is a determinant of children's mental health that permeates and impacts other levels of a child's ecology (Berry et al., 2021).

Lack of MHL Theory of Change

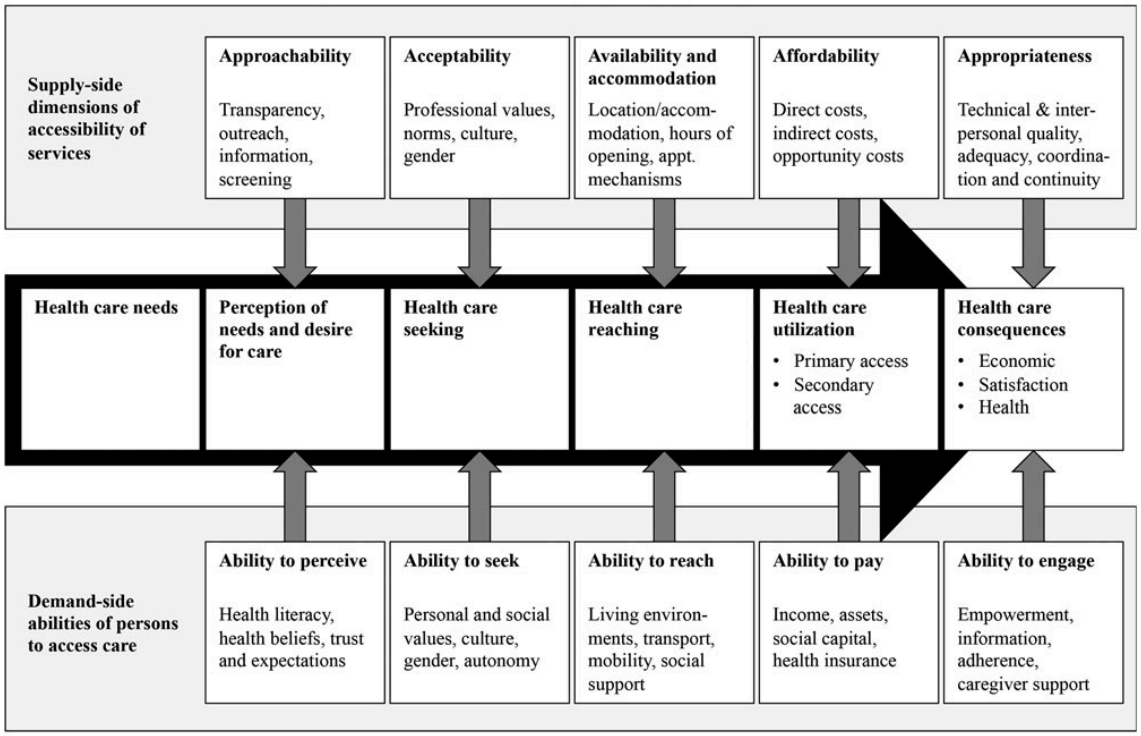
When MHL was first conceptualized, the hypothesis was that greater MHL in the public would increase the likelihood of early recognition and appropriate intervention for mental health disorders as individuals experiencing mental health problems and those with close contact to them would recognize and attempt to manage symptoms through mental health care access (Jorm, 2000; Jorm et al., 1997). Although this provides some insight into why it is beneficial to promote MHL, there is currently no comprehensive logic model or theory of change for why MHL works to change mental-health related outcomes (Mansfield et al., 2020). Prior research has identified further conceptualization and development of MHL theory as future directions for research (Spiker & Hammer, 2019).

Some researchers have considered MHL as a malleable factor along the pathway to accessing mental health care (Werlen et al., 2020). Werlen and colleagues (2020) conducted a systematic review and meta-analysis of interventions to improve children's access to mental health care. Their review was organized around Levesque et al. (2013)'s conceptual framework of the pathway to accessing health care, which they adapted for mental health care (see Figure 1). The conceptual framework includes supply-side dimensions of accessibility of services (e.g., approachability, acceptability, availability/accommodation, affordability, and appropriateness) along with demand-side abilities of persons to access care (i.e., ability to perceive, seek, reach, pay, and engage in services). In the original model, health literacy is thought to impact the demand-side abilities of a person to perceive their needs for and desire of care (Levesque et al.,

2013). Werlen et al. (2020) included MHL in the place of health literacy in the framework. In their review, MHL interventions were included with other universal school-based interventions targeting students, and this category of universal interventions had a significant impact on the early steps of accessing care, especially knowledge and attitudes toward mental health and mental health care (Werlen et al., 2020). This conceptual framework provides some insight into how MHL is thought to relate to accessing mental health care, but it is limited in scope. This framework emphasizes how improving the MHL of youth is thought to impact their ability to perceive their needs and desire of care but does not describe any connections between the MHL of adults in the lives of youth and youth mental health-related outcomes.

Figure 1

Conceptual Framework of Access to Health Care



Note. From "Interventions to improve children's access to mental health care: a systematic review and meta-analysis" by L. Werlen, D. Gjukaj, M. Mohler-Kuo, and M.A. Puhan, 2020, *Epidemiology and Psychiatric Sciences, 29* p. 15 (https://doi.org/10.1017/S2045796019000544).

Gateway Provider Service Framework

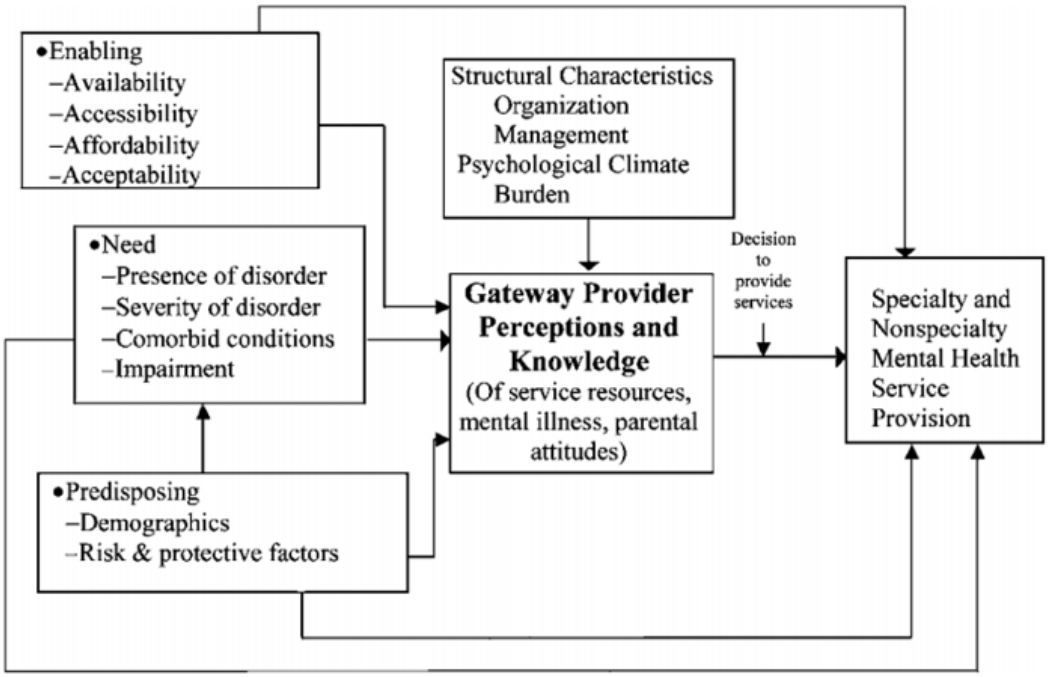
Another framework for understanding children and youth mental health service access to treatment is the Gateway Provider Service Framework (Stiffman et al., 2004). The framework is outlined in Figure 2 and includes the key role of "gateway providers" in helping to detect youth mental health needs and decide whether to take steps towards services. Gateway providers for youth are individuals who might help to direct them to mental health services, such as their friends, caregivers, educators, or other important adults in their lives.

The Gateway Provider Service Framework describes how factors of the individual and their environment contribute to their likelihood of receiving mental health services, which is consistent with EST (Stiffman et al., 2004). The factors related to the youth are their specific needs (e.g., severity of disorder symptoms), predisposing characteristics (e.g., sociocultural identities, demographics, risk factors), and enabling aspects of their environment (e.g., accessibility of mental health services). These three components are thought to directly impact their likelihood of using mental health services but are also used by the gateway provider during their decision-making process of making referrals. In addition to the youth's factors, the gateway provider's perceptions and knowledge of mental health (i.e., MHL), services, and the youth's parents' attitudes toward mental health (e.g., stigma) are thought to impact decision making. Finally, variables in the gateway provider's environment, like their organization structures (e.g.,

mental health systems at a school) impact their perceptions and knowledge, which then impacts their decision-making process for referring.

Figure 2

Gateway Provider Service Framework



Note. From "Building a Model to Understand Youth Service Access: The Gateway Provider Model" by A. R. Stiffman, B. Pescosolido, and L. J. Cabassa, 2004, *Mental Health Services Research, 6*(4), p. 193 (https://doi.org./10.1023/B:MHSR.0000044745.09952.33). Copyright 2004 Springer Science + Business Media, Inc.

The Gateway Provider Service Framework provides insight into why MHL interventions about youth mental health have been developed for educators, although MHL is not explicitly named in the model. The MHL of the gateway provider includes their knowledge and perceptions of mental health disorders and service options, along with their knowledge and

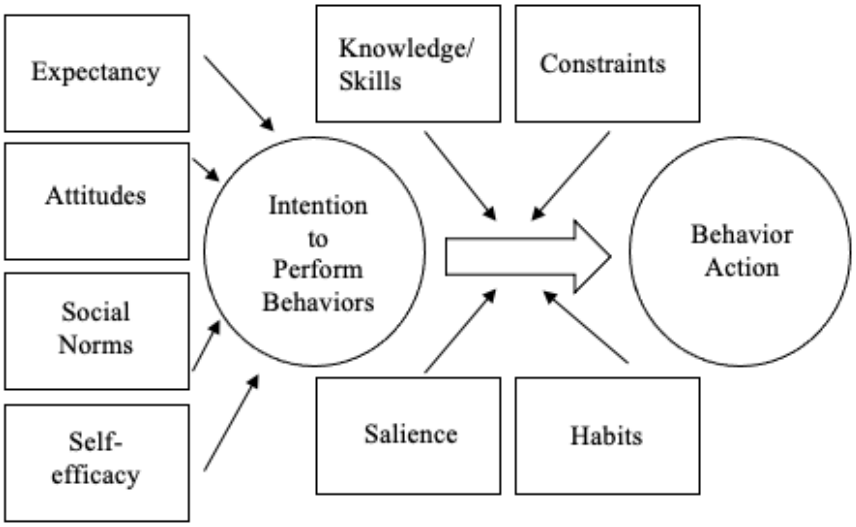
perception of individual's need, predisposing, and enabling factors related to mental health. Take the example of an educator as a gateway provider. If they had low mental health literacy, this framework proposes that they would likely not perceive the signs of a youth's mental health problems. Without knowing the signs and symptoms, they might not perceive a mental health need and that would influence their referral decision. In this framework, MHL is one of the malleable factors along the pathway to mental health service access. MHL interventions have been discussed as gatekeeper trainings for adults in youths' lives to increase their ability to act to support students facing mental and behavioral health challenges (Gryglewicz et al., 2018).

Unified Theory of Behavior

Within the Gateway Provider Service Framework, gatekeepers actively make decisions to act in ways to help provide students with mental health supports. From this lens, one of the important outcomes of MHL interventions with educators would be behavior change. The Unified Theory of Behavior (UTB) can help provide insight into the processes and factors influencing educator behavior change after MHL interventions (Jaccard et al., 2002). As depicted in Figure 3, UTB includes two sets of factors, (a) those influencing the intention to engage in a behavior and (b) those impacting the translation of intention into action (Smith et al., 2021). The factors influencing intentions are expectancy, attitudes, sociocultural norms, and self-efficacy. The factors impacting behavioral action beyond intentions include salience, constraints, skills/knowledge, and habits.

Figure 3

Unified Theory of Behavior



Note. Adapted from "Theories of Behavior Change" by T. E. Smith, K. C. Herman, and W. M. Reinke, in K. K. Kelly, S. A., Garbacz, and C. A. Albers (Eds.), *Theories of School Psychology: Critical Perspectives* (p. 138), 2021, Routledge (https://doi.org./10.4324/9781351064941). Copyright 2021 Taylor & Francis.

In the context of a MHL intervention, an example desired behavior change could be the educator utilizing MHL information to support a youth with a mental health concern and refer them to get help. The key factors from UTB that influence behavioral intentions can be considered in relation to MHL, including expectancy, or the belief that engaging in actions will yield positive results; attitudes, or beliefs about the usefulness of MHL actions; social norms, or perceptions of stigma related to mental health; and self-efficacy, or beliefs and confidence that one can carry out helping behaviors related to MHL (Banh et al., 2019; Smith et al., 2021). Two of these factors, stigma and self-efficacy, will be described further due to extant literature in these areas. Even with intentions to engage with behaviors from MHL interventions, according to UTB, the educators' transition from intention to engagement in behaviors can still be influenced by the four other considerations. This could include salience, or the extent to which

MHL actions are a part of the person's attention or considered relevant; constraints, which could be situational factors like resources to support SMH; habits, or the old ways an educator might have interacted with youth with mental health problems, and knowledge/skills, or the extent to which an educator has knowledge and skills related to youth mental health. Of these factors, knowledge/skills related to MHL is most frequently measured as an outcome of MHL interventions.

Mental Health Knowledge

Since its original conceptualization, MHL has been defined as including knowledge related to mental health, mental health disorders, and supportive help-seeking and treatment options (Jorm et al., 1997). Existing approaches to assess knowledge of mental health often focus on declarative knowledge related to mental health disorders, or the use of knowledge measures to assess awareness of general facts needed to understand and identify mental health disorders and supportive treatments (Aller et al., 2021). There have been limited investigations of mental health knowledge about children and youth mental health in the general population of U.S. adults; however, one investigation utilizing a nationally representative sample found that about 59% of adults could correctly identify children with depression and approximately 42% could correctly identify children with attention-deficit/hyperactivity disorder from vignettes (Pescosolido et al., 2008). This indicates room for improvement in adult knowledge of children's mental health disorder symptoms to be able to accurately recognize and identify mental health disorders. This investigation was limited in scope as it included only two mental health disorders.

In an investigation of adult MHL in the general population of a midwestern state, Lee et al. (2020) focused on identifying predictors of adults' MHL knowledge. Participants' predisposing characteristics (i.e., gender, age group, marital status, race/ethnicity), enabling

factors (i.e., health literacy, social support, education level, annual health checkup, and social group participation), and need factors (i.e., self-reported health status, indicators of current depression, and mental health facility use) were utilized in multiple regression analyses to identify factors with significant relationships with MHL. Of the predisposing factors, non-Latino white participants were more likely to have higher MHL than other racial/ethnic groups. None of the other characteristics were significantly predictive of MHL, although MHL was significantly higher among females than males. Of the enabling factors, perceived level of social support, health literacy, participation in a social group, and education level were each positively associated with MHL. Finally, none of the need related factors reached statistical significance. Overall, this study provides initial insight into some of the potential predictors of MHL knowledge among U.S. adults.

Focusing in on the specific target population of educators, previous research indicates that educators, including teachers and paraprofessional staff, view themselves as having insufficient knowledge and training in children and youth mental health to meet the mental health needs of students they work with (Andrews et al., 2014; Frauenholtz et al., 2017; Reinke et al., 2011). Further, educators have identified a need for more training in mental health to improve their knowledge of disorders, treatments, and resources to support student mental health (Graham et al., 2011; Moon et al., 2017; Reinke et al., 2011). When interviewed, educators report needing more knowledge of how to identify signs and symptoms of youth experiencing mental health disorders, how to talk to a struggling student, the steps of the referral process, and strategies and interventions conducive to the classroom environment (Deaton et al., 2022). Leaders in the field of SMH have identified educators should have knowledge of how to promote student mental health and well-being (i.e., understanding stigma, common mental health

language, positive mental health, positive classroom climate, wellness strategies) and how to identify, support, and refer students experiencing mental health distress (i.e., referral process, educator's role in SMH system, identifying risk factors without labeling or diagnosing, and screening; Semchuk et al., 2023).

In addition to directly asking educators about their knowledge of children's mental health, other researchers have utilized vignette-based techniques to measure teacher knowledge and skills to be able to identify mental health concerns (Green et al., 2018; Loades & Mastroyannopoulou, 2010; Splett et al., 2019). Teachers can correctly recognize vignettes describing students with significant, clinical-level internalizing and externalizing concerns (Green et al., 2018; Loades & Mastroyannopoulou, 2010; Splett et al., 2019), however they are less accurate and less likely to think that students with moderate symptoms needed supportive services (Splett et al., 2019). This indicates a potential need to improve teachers' knowledge of early risk factors and symptoms associated with mental health problems and supportive treatments at the preventative and early-intervention level. This aligns with recommendations from SMH experts of the types of mental health knowledge educators should obtain (Semchuk et al., 2023). Overall, the literature on educators' mental health knowledge indicates that they do exhibit some knowledge and understanding of youth mental health concerns when tasked with vignette cases, but that further training has been recognized by educators and experts in SMH as something that would benefit their work with students.

Recognizing that mental health related knowledge is a central component of MHL, it has been included as a primary outcome measure of MHL intervention studies (Wei et al., 2015). In a review of MHL knowledge measures with available psychometric properties, sixteen tools were identified to evaluate mental health knowledge among different populations that utilize

different item formats, including vignettes, multiple choice questions, and Likert-scale ratings (Wei et al., 2016). Measurement tools for mental health knowledge also vary in the content that they cover, with some focused on general facts about multiple mental health disorders and treatments (e.g., Mental Health Literacy Scale; O'Connor & Casey, 2015) and others focused on specific knowledge about one disorder and its treatment (e.g., Knowledge about Schizophrenia Questionnaire; Ascher-Svanum & Krause, 1999). Most of the investigations of educator MHL interventions have measured impacts on educators' mental health knowledge, but the specific measurement tools have not been consistent (see reviews by Anderson et al., 2019; O'Connell et al., 2021, Sánchez et al., 2021, Yamaguchi et al., 2020).

Researchers have developed a few measures, like the Mental Health Literacy Tool for Educators (MHL-ED; Wei et al, 2019) and the Teacher School Mental Health Literacy Survey (TSMHLS, Brann et al., 2018) that capture mental health-related knowledge. Of note, the TSMHLS was developed to assess knowledge, attitudes, self-efficacy, and beliefs about mental health concerns, teachers' roles, and help-seeking and is not published (Mastrorio et al., 2020). The MHL-ED is available by the developers for use, however a limitation of the tool is the scope of mental health knowledge included. The tool addresses epidemiology and aetiology of mental health illnesses, facts about common mental health disorders in youth, treatments for mental illness, and help-seeking resources. However, it does not fully capture some of the areas of knowledge that experts in the field of SMH have identified as important for educators, like knowledge of strategies to use in the classroom to promote youth wellness and a positive classroom climate, screening for mental health disorders, how to support youth with mental health disorders in the classroom, or how to refer students experiencing mental health distress within a school (Semchuk et al., 2023).

Mental Health Disorder Stigma

The seminal definition of stigma describes an attribute that damages someone's reputation and degrades them to a socially discredited status (Goffman, 1963). Within mental health disorder stigma research, there are multiple theories, definitions, and related terms, which makes research in this area complex and unclear (Fox et al., 2018). Further there have been over 400 new measures of mental illness stigma developed since 2014, with measurement tools created under different theories and with different stigma-related terms (Fox et al., 2018). Corrigan and Kosyluk (2014) provide one conceptualization of four main categories of mental health disorder stigma, including public stigma, self-stigma, label avoidance, and structural stigma. This conceptualization aligns with research suggesting that stigma operates on different levels of society (Holder et al., 2019).

Public stigma, which is sometimes referred to as social stigma, is the process where members of the general population endorse stereotypes of mental health disorders and act in discriminatory ways (Corrigan & Kosyluk, 2014; Holder et al., 2019). In a review of population-based studies of public stigma in the U.S., children and adults tend to endorse stigmatizing beliefs and actions towards individuals with mental health disorders (Parcesepe & Cabassa, 2012). Self-stigma, which is often referred to as internalized stigma, is when an individual with a mental health disorder judges themselves and their mental health symptoms negatively because they recognize that the general public holds prejudice and may discriminate against them because of their mental health disorder (Corrigan & Kosyluk, 2014; Holder et al., 2019). Label avoidance refers to the type of stigma that deters service use by individuals in need of mental health treatment because of the fear of diagnostic labeling (Corrigan & Kosyluk, 2014). This conceptualization is similar to what other researchers describe as treatment stigma, or the stigma

associated with seeking treatment or support for mental health disorders (Fox et al., 2018). Finally, structural stigma references the ways in which rules, policies, and procedures of institutions like educational systems and the government may intentionally or unintentionally discriminate and restrict the rights and opportunities of individuals with mental health disorders (Corrigan & Kosyluk, 2014).

Another conceptualization of mental health disorder stigma called the Mental Illness Stigma Framework categorizes and describes individual-level experiences of stigma (Fox et al., 2018). It describes stigma mechanisms experienced by stigmatizers, stigmatized, and both groups of people. From the perspective of the stigmatizer, which is defined as individuals who do not have and who have never had mental health disorders, there are three relevant stigma mechanisms. These include stereotypes, which are cognitive beliefs about the characteristics and behaviors of individuals with mental health disorders (Fox et al., 2018; Corrigan, 2005; Stangor, 2009). Prejudice involves believing stereotypes associated with mental health disorders include dangerousness, incompetence, and responsibility (e.g., Corrigan & Kosyluk, 2014). Examples of the affective responses for stigmatizers who are prejudiced toward an individual with a mental health disorder or the general group of people with mental health disorders (Stangor, 2009) include fear, pity, and anger (Corrigan, 2005; Corrigan et al., 2004). Finally, discrimination is the behavioral component of stigma and is defined as unjust or unfair behaviors, which can be overt or subtle, directed towards individuals with mental health disorders (Allport, 1954; Pescosolido & Martin, 2015).

There are three stigma mechanisms relevant to the stigmatized, defined as individuals who have had mental health disorders Fox et al., 2018). The first is experienced or enacted public stigma, or the experiences of stereotypes, prejudice, and discrimination from others

(Quinn & Earnshaw, 2011; Bos et al., 2013). Anticipated stigma, which is sometimes called felt stigma, is the extent to which a person with a mental health disorder expects to be a target of stereotypes, prejudice, or discrimination in the future (Quinn & Earnshaw, 2011; Bos et al., 2013). Individuals who have had or currently have mental health disorders are likely aware of the stereotypes and prejudices associated with mental illness and the discriminatory behaviors that may impact their treatment, so may anticipate stigma even if they have not had personal experiences (Fox et al., 2018). Finally, there is internalized stigma, or the application of negative stereotypes and prejudice to the self, impacting self-esteem and increasing psychological distress (Corrigan & Kosyluk, 2014; Fox et al, 2018). The stigma mechanism described by the Mental Illness Stigma Framework as being shared by both groups is perceived stigma, or the perceptions of societal beliefs, feelings, and behaviors towards people with mental health disorders (Bos et al., 2013; Fox et al., 2018). This can differ from an individual's own beliefs and is similar to public stigma in that it is the perceptions of the amount of stigma in the general public.

The Mental Illness Stigma Framework recognizes that mental health disorders are culturally situated and socially devalued identities in society (Fox et al., 2018). It also recognizes that there is intersectionality in experiences of stigma based on individuals' social identities, rather than universal experiences within the two categories of people they designated as the stigmatized and stigmatizer. In a review of stigma towards mental illness in children and youth, there was a call for an increased focus in research on considering differences in stigma based on demographic variables (e.g., age, gender identity, cultural background) of the stigmatizer and stigmatized, along with the nature of the mental illness (e.g., diagnosis, severity) to better understand stigma experiences of youth and children (Heary et al., 2017).

Prior research indicates that youth diagnosed with mental health disorders report perceived stigma, or experiencing different treatment by their peers, families, and school staff (Moses, 2010). During interviews with 60 youth with mental health disorders, about one third described being treated differently in a negative way by either some of their school staff or some of the time, which included being underestimated, unfairly blamed, avoided, excluded, disliked, or feared. About 20% indicated being treated differently in a positive way, highlighting the support educators can provide for students. Students experiencing mental health distress or mental health disorders who are identified and placed in special education under the label of emotional and behavioral disability (EBD) may also experience stereotypes, prejudice, and discrimination from school staff (Farmer, 2013; Hetrick et al., 2022). For example, one study found that students labeled with EBD had significantly more office disciplinary referrals and in-school suspensions than peers who had similar elevated internalizing and/or externalizing symptoms but did not have the EBD label (Hetrick et al., 2022).

As noted in the conceptualization of MHL by Kutcher and colleagues in 2016, higher MHL is expected to contradict and reduce stigma and thus it is a common target outcome to measure when researching the impacts of MHL interventions. In a review of stigma measures used to evaluate MHL interventions, there were a variety of conceptualizations of stigma (e.g., perceived stigma, self-stigma) measured (Wei et al., 2018). Many of the investigations of educator MHL interventions measured impacts on educators' stigma, yet have not always clearly defined what type of stigma (see reviews by Anderson et al., 2019; O'Connell et al., 2021, Sánchez et al., 2021, Yamaguchi et al., 2020). For example, Anderson et al. (2019) reviewed MHL trainings for secondary school educators and found that studies varied in including items addressing attitudes towards treatment (i.e., treatment stigma), attitudes towards people with

non-specified mental health issues, perceptions of people with specific mental health diagnoses, and perceived stigma of mental health overall (i.e., perceived stigma). This highlights the necessity of clearly defining stigma within an investigation of a MHL intervention.

Educator Mental Health Self-Efficacy

Self-efficacy was originally proposed as an individual's belief in their abilities to successfully complete goals or carry out actions (Bandura, 1997; 2006). The higher an individual's self-efficacy, the more likely a person is to feel confident to perform tasks, and this confidence is thought to influence behavior (Bandura, 1997). Self-efficacy is often studied in the context of health-related behaviors. Correlational studies suggest that self-efficacy is a predictor of engagement in health behaviors (e.g., McEachan et al., 2011). A meta-analysis found that experimentally induced changes in self-efficacy led to medium-sized changes in behavioral intentions and medium-sized changes in behavior performance of health behaviors (e.g., exercise, smoking; Sheeran et al., 2016).

Self-efficacy has also been utilized in relation to confidence in teaching as teacher self-efficacy is conceptualized as their beliefs about their capacity to affect student performance (Berman et al., 1977). Previous investigations of teacher self-efficacy found that having higher self-efficacy is negatively correlated with burnout factors (Schwarzer & Hallumm 2008). Further, teacher self-efficacy correlates positively with work satisfaction (Klassen et al., 2011; Türkoğlu et al., 2017). Teacher's mental health self-efficacy is defined as an individual's belief in their ability to successfully support students' [or youths'] mental health needs (Brann et al., 2021). For educators, this has been further defined as their confidence to teach students with mental health needs, respond to mental health concerns, recognize mental health concerns, and promote positive mental health in the classroom (Brann et al., 2021). Prior research indicates that

knowledge about mental health and neurodevelopmental disorders is positively associated with self-efficacy in teachers and can be improved through teacher professional development (Alkahtani, 2022; Latouche & Gascoigne, 2019). In the context of MHL interventions, some investigations have included a few items to capture educator comfort and confidence in supporting student mental health, but there have been limited investigations utilizing validated measures of educator mental health self-efficacy (e.g., Aakre et al., 2016; Gryglewicz et al., 2018; Haggerty et al., 2019; Kidger et al., 2016; Kutcher, Wei, Costa, et al., 2016; Rose et al., 2019).

Review of MHL Interventions for Educators

Common MHL Interventions for Educators

There have been multiple systematic reviews of MHL interventions for educators in the past few years (Anderson et al., 2019; O'Connell et al., 2021, Sánchez et al., 2021, Yamaguchi et al., 2020). This current review does not comprehensively describe all MHL interventions utilized with educators but instead focuses on describing three common MHL interventions utilized with educators. The interventions selected for review were identified from the aforementioned reviews of MHL interventions for educators and required at least three prior published evaluations on the intervention to be considered "common." The first MHL intervention approach is Mental Health First Aid (MHFA), which originated in Australia (Jorm et al., 2010) and the other MHL interventions are The Guide Professional Development Program and the Go-To Educator Training, which were developed in Canada (Kutcher et al., 2013; Wei & Kutcher, 2014).

Youth Mental Health First Aid

MHFA was originally developed as an intervention to improve the MHL of the general public in Australia and is built off a first aid training model with the purpose of teaching adults how to provide initial help to adults in mental health crisis situations (Jorm et al., 2004). MHFA is now implemented internationally, with approximately 26 accredited programs in 24 countries, including the U.S. (MHFA International, 2022). In the U.S., there are 10 MHFA courses tailored to specific populations and contexts, including distinctions by age (i.e., adult, teen, older adults), career (i.e., higher education, veterans, police, fire/EMS) and context (i.e., workplace, rural communities; National Council for Mental Wellbeing, 2022). The central focus of all variants of MHFA is to teach an action plan people can use when encountering someone with mental health problems who is in distress, called ALGEE (Kelly et al., 2017). This is a five-step acronym: **A**ssess for risk of suicide or harm; **L**isten non-judgmentally; **G**ive reassurance and information; **E**ncourage appropriate professional help; and **E**ncourage self-help and other support strategies.

Youth Mental Health First Aid (Y-MHFA) is a modified version of MHFA adapted to teach adults how to assist adolescents (age 12-18) with common mental health disorders (Jorm et al., 2010). Topics covered in Y-MHFA include definitions of mental health and mental health disorders, adolescent development, ALGEE process for intervening, and common mental health concerns signs and symptoms, including: depression, anxiety, eating disorders, psychosis, substance use disorders, and attention deficit and disruptive behavior disorders (National Council for Behavioral Health, 2016). Y-MHFA courses are typically delivered to groups of up to 30 individuals by up to two certified trainers and last approximately 8 hours (Sánchez et al., 2021). Each participant in a course receives a copy of a Y-MHFA manual to keep and a list of appropriate community resources created by the trainer for their community. The delivery of Y-MHFA is typically in-person; however, there are also blended versions with self-paced online

content and then instructor-led training that can be delivered via video conference technology or in-person (National Council for Mental Wellbeing, 2022). The intervention includes didactic instruction using standardized PowerPoints, guided discussions, interactive activities, and opportunities to practice using ALGEE skills through role-plays covering situations like panic attacks, suicidal thoughts or behaviors, and non-suicidal self-injury (Jorm et al., 2010; Sánchez et al., 2021). One of the limitations of using Y-MHFA as a MHL intervention for educators is that it is not tailored to the school context, so it does not instruct educators about SMH systems and the ways that student mental health conditions or crisis play out in schools (Sánchez et al., 2021).

In the U.S., Y-MHFA is implemented through the National Council for Mental Wellbeing (formerly the National Council for Behavioral Health) and the Missouri Department of Mental Health (Mental Health First Aid, 2022). The National Council for Mental Wellbeing is a nonprofit focused on promoting greater understanding of mental wellbeing and building the capacity of mental health and substance use treatment organizations (National Council for Mental Wellbeing, 2022). Y-MHFA is implemented using a train-the-trainer model, where the National Council for Mental Wellbeing provides training to individuals to become Y-MHFA instructors, who then deliver Y-MHFA trainings in their communities.

The Guide Professional Development Program

In contrast to Y-MHFA, The Guide Professional Development Program and the Go-To Educator Training were developed specifically for educators within schools in Canada (Kutcher et al., 2013; Wei & Kutcher, 2014). In 2007, a MHL curriculum called The Mental Health & High School Curriculum Guide (The Guide) was created for educators to deliver within their classrooms to students during their transition from middle to high school in grade 9, which is sometimes the final year in middle school or first year in high school in Canada (Kutcher et al.,

2013). The developers targeted students in adolescence because it is a key epidemiological acceleration point for the incidence of mental health disorders (e.g., Kessler et al., 2005). The Guide curriculum is approximately 10 to 12 total classroom hours of content in six classroom-ready modules that have learning objectives, lesson plans, classroom-based activities (e.g., jigsaw activities, classroom games), and teaching resources (e.g., PowerPoint, videos) covering stigma of mental health disorders, understanding mental health and wellness, understanding mental health disorders and their treatments, experiences of mental illness, seeking help and finding support, and the importance of positive mental health (Kutcher et al., 2015). To support educators to deliver The Guide to their students, Drs. Kutcher and Wei developed The Guide Professional Development Program for educators to increase their MHL and to provide instruction on The Guide implementation (Kutcher et al., 2013).

Originally established as an in-person workshop approximately eight hours long for groups of up to 30 educators, The Guide Professional Development Program includes a review of adolescent mental health, the relationship between brain function and mental health, key concepts around mental health and mental illness contextualized to the school setting, debunking of mental health myths, an overview of The Guide youth curriculum, and practice opportunities (Kutcher et al., 2013). The workshop also includes videos of adolescents experiencing mental health disorders, didactic instruction utilizing standard PowerPoints, discussion opportunities, and access to online supplemental resources. Each participant is provided copies of The Guide curriculum and all training materials used during The Guide Professional Development Program.

The Guide Professional Development Program is implemented through an organization called MentalHealthLiteracy.org based in Alberta, Canada which provides trainings nationally within Canada and internationally (MentalHealthLiteracy.org, 2022). The original

implementation process of The Guide and The Guide Professional Development Program typically follows the following process: an educational authority decides to implement The Guide, so a key contact person and the school-based implementation team gathers with trainers from MentalHealthLiteracy.org to create an implementation plan. The plan includes deciding which classes will integrate the content of The Guide, selecting which educators would be invited for the training, and the creation of an evaluation plan (Kutcher et al., 2013).

In addition to investigations of The Guide Professional Development Program that follow the original training and implementation process, there have also been investigations of the effectiveness of adaptations of The Guide Professional Development Program. There was a version with minor adaptations (i.e., reduction of epidemiological and non-Canadian information) utilized with pre-service middle and high school teachers during their teacher education program delivered in a one-day format (Carr et al., 2018). A further iteration of The Guide Professional Development Program investigated the in-person professional development version and a massive open online course version developed in partnership with faculty of education at a large Canadian University to increase the scope of and access to the professional development program in Canada and beyond (Wei et al., 2020). Another line of adaptions of this work has focused on cultural adaptations for educators in primary and secondary schools in Malawi (Kutcher et al., 2015) and Tanzania (Kutcher, Wei, Costa, et al., 2016). To adapt the training for Malawi educators, the Ministry of Health consultants and counselors affiliated with the Guidance, Counseling, and Youth Development Center for Africa reviewed, modified, and translated the content before utilizing a train-the-trainer approach with local mental health professionals and then educators (Kutcher et al., 2015). Further adaptations of the version

utilized in Malawi were completed by a group of Tanzanian mental health experts for use in Tanzania (Kutcher, Wei, Costa, et al., 2016).

Go-To Educator Training

The final MHL intervention for educators is called the Go-To Educator Training, which was created by the same Canadian team as The Guide Professional Development Program (Kutcher & Wei, 2013). It was originally developed for a rural high school implementing The Guide Professional Development Program and The Guide curriculum. There was a need for a MHL training aimed for school staff that students would "Go-To" when they have a mental health problem, who would understand referral principles and processes (Kutcher & Wei, 2013). The focus is on educating staff in secondary schools to be able to support students with mental health disorders and to work effectively with mental health care providers, parents, and families. The Go-To Educator Training includes five required and one optional section: introduction, causes of mental health and basic epidemiology, overview of common disorders and early identification strategies, treatment and supportive principles, connecting to parents, and optional core trainer practices if the training is for core trainers (Wei et al., 2021). Within the connecting to parents section, information is provided about effective communication practices for educators to use with parents and caregivers. There is a Go-To Parent Seminar that can be utilized in tandem with the Go-To Educator Training, which is a brief, two-hour informational seminar implemented with parents of students in the same school community as the Go-to Educator Training. The Go-To Educator Training also includes videos of adolescents experiencing mental health disorders, didactic instruction utilizing standard PowerPoints, discussion opportunities, and access to online supplemental resources. Participants are provided with copies of materials.

Similar to The Guide Professional Development Program, the Go-To Educator Training has been implemented across Canada using a train-the trainer model, embedding training capacity within school systems by the research team training "core trainers" who can then provide professional development to other educational staff as a sustainable approach within schools (Wei et al., 2021). Additionally, the Go-To Educator Training was originally designed to be implemented as a one-day, eight hour in-person training but since the COVID-19 pandemic, it has been implemented virtually and broken into multiple, shorter sessions totaling eight hours (MentalHealthLiteracy.org, 2022; Wei & Kutcher, 2014).

Summary of Common MHL Interventions

From this review of three common MHL interventions for educators, there are key similarities and differences between the MHL interventions. Y-MHFA is an intervention designed for anyone in a community who works with youth and most of the training content focuses on understanding common mental health disorders in youth and responding to youth experiencing mental health crises (Sánchez et al., 2021). On the other hand, The Guide Professional Development Program and the Go-To Educator Training were developed for educators in middle and high schools and focus on describing youth mental health concerns and strategies for supporting youth within the context of schools and collaborating with parents for SMH supports (Kutcher et al., 2013; Wei & Kutcher, 2014).

Reviewing the intervention characteristics, all the interventions were originally developed as full-day (i.e., eight hour) in-person trainings for groups of approximately 30 individuals. Additionally, all interventions utilize PowerPoints to deliver didactic content, include interactive activities (e.g., discussions), and provide copies of the content for participants. On the websites for these interventions, there are details suggesting that the interventions can be implemented in

different formats, like a combination of virtual asynchronous and in-person content for Y-MHFA (National Council for Mental Wellbeing, 2022) and synchronous virtual trainings for the Go-To Educator Training (MentalHealthLiteracy.org, 2022). The only non-in-person format of the interventions that has been studied is an asynchronous open online course version of The Guide Professional Development Program (Wei et al., 2020). That evaluation compared the outcomes of educators who participated in the traditional in-person intervention to educators who did an asynchronous online format and educators who did neither intervention who acted as a control group. The results demonstrated that educators who participated in both versions improved their MHL knowledge and reduced stigmatizing attitudes compared to those in the control group. There were no significant differences between the two intervention groups. Finally, comparing the interventions' international dissemination, Y-MHFA has been studied in the U.S. and is in approximately 24 countries and The Guide Professional Development Program and the Go-To Educator Training have primarily been studied in Canada, besides two evaluations of versions in African countries.

Outcomes of MHL Interventions for Educators

To review the outcomes of these common MHL interventions for educators across the studies, information will be summarized for each MHL intervention in a few key domains by a framework of change for professional development for educators, KASAB: knowledge, attitudes, skills, aspirations, and behaviors (Killion, 2018; see Table 1).

Table 1

KASAB Framework for Assessing MHL Intervention Outcomes

Outcomes	Definition	Applications to MHL

Knowledge	Content, concepts, principles, information, etc., used as a basis for determining and implementing actions	Knowledge components of MHL
Attitudes	Beliefs about the value of information, strategies, processes, or actions	Attitudes and beliefs related to mental health, including all references to stigma
Skills	Strategies and processes to apply knowledge; capacity to act	Ability to use specific MHL skills, intentions in engage in a specific skill (e.g., help-seeking)
Aspirations	Desires, or internal motivation, to engage in a particular practice	Self-efficacy, confidence, comfort, and general intentions in providing supports around mental health
Behaviors	Consistent application of practices within authentic settings	Application of practices and strategies taught in MHL interventions

Note. This table includes the main outcomes, definitions of outcomes, and applications of outcomes in MHL. The content is adapted from Sánchez et al. (2021) and Killion (2018).

Y-MHFA Outcomes

A recent systematic review of investigations of Y-MHFA interventions for educators and college students within education and other youth-serving programs found that Y-MHFA provides promising improvements in trainees' MHL (Sánchez et al., 2021). Across eight studies, participants were described as: secondary school educators ($N = 472$; Kidger et al., 2016); educators of grades 8 to 10 ($N = 221$; Jorm et al., 2010); educators within one school district across elementary, middle, and high schools ($N = 356$; Gryglewicz et al., 2018); educators and health service providers ($N = 458$; Morawska et al., 2013); social work graduate interns with youth ($N = 73$; Rose et al., 2019); employees of a social services state department, including educators and individuals in child-welfare ($N = 384$; Aakre et al., 2016); adults within the community, including educators ($N = 246$; Kelly et al., 2011; and a variety of educators, nurses,

community professionals, and mental health professionals (N = 205; Haggerty et al., 2019). Sánchez et al. (2021) broke down the outcomes using the KASAB framework and out of their total sample of eight studies, the most included outcomes were attitudes (n = 7), knowledge (n = 6), aspirations (n = 5), skills (n = 3), and behaviors (n = 2). In addition, the review calculated average effect sizes for each of the KASAB domains to better understand the magnitude of the effects. Y-MHFA was found to improve educators' mental health skills (d = 1.01) and knowledge (d = .85), with some evidence of improvements in attitudes (d = .39), aspirations (d = .38), and limited effects on behaviors (d = .12). In the two studies that explicitly measured behaviors, there were not statistically significant differences in utilization of helping behaviors at follow-up of those who participated in the MHL intervention and those who did not (Jorm et al., 2010; Kidger et al., 2016). Of note, Morawska et al. (2013) did not have a quantitative measure of behavior change, but in postintervention interviews with a subsample of their participants, most interviewed stated they offered assistance to individuals experiencing mental health problems.

Notably, there are some limitations of Sánchez et al.'s (2021) findings on Y-MHFA outcomes based on variability in the underlying studies' designs and methodology. Most studies had pre-experimental study designs where there was only one group of educators who received training and completed pre-, post-, and sometimes follow-up measures that ranged from 3- to 6-months post-training (Aakre et al., 2016; Gryglewicz et al., 2018; Haggerty et al., 2019; Kelly et al., 2011; Morawska et al., 2013; Rose et al., 2019). For these investigations, a primary limitation is that the improvements in mental health-related outcomes could not conclusively result only from Y-MHFA and there may be selection bias. The remaining two investigations were cluster randomized controlled trials (Jorm et al., 2010; Kidger et al., 2016).

Across the eight investigations of Y-MHFA, there was also great variability in the methods utilized to measure each outcome. To measure changes in educator knowledge, Rose et al. (2019) used the Mental Health Beliefs and Literacy Scale (Anthony et al., 2015) and the other studies used evaluation surveys developed by the creators of Y-MHFA (Gryglewicz et al., 2018; Haggerty et al., 2019; Jorm et al., 2010; Kelly et al., 2011; Kidger et al., 2016). To measure attitudes, researchers used different surveys and vignette measures that included items focused on attitudes towards mental health (Gryglewicz et al., 2018; Haggerty et al., 2019; Kidger et al., 2016; Morawska et al., 2013), mental health stigma (Aakre et al., 2016; Gryglewicz et al., 2018; Jorm et al., 2010; Kelly et al., 2011; Morawska et al., 2013), mental health interventions (Jorm et al., 2010) and attitudes towards performing ALGEE actions to aid a young person (Aakre et al., 2016; Rose et al., 2019). Skills were also measured differently across the three studies that included it as an outcome, as some participants were asked to apply ALGEE strategies in vignettes (Kidger et al., 2016), rate their skills to respond to a student with a mental health problem (Gryglewicz et al., 2018), or report on ALGEE skills at a 6-month follow-up (Kelly et al., 2011). Aspirations were measured similarly across studies as confidence to provide youth mental health supports; however, the specific questions used in measures differed in each of the studies (Aakre et al., 2016; Gryglewicz et al., 2018; Haggerty et al., 2019; Kidger et al., 2016; Rose et al., 2019). Finally, to measure educator behaviors, Jorm et al. (2010) and Kidger et al. (2016) each included questions in their follow-up measures about whether educators had applied practices from the training with their students. Overall, there was a great amount of diversity within outcome measurement and Sánchez et al. (2021) mentioned that this made it difficult to compare outcomes of Y-MHFA, especially because many studies did not clearly define their outcomes.

The Guide Professional Development Program Outcomes

Unlike Y-MHFA, there have not been any systematic reviews on the effectiveness of The Guide Professional Development Program. Studies included in this current review assess the outcomes of The Guide Professional Development Program for middle and high school educators working in Canada (Kutcher et al., 2013; Wei et al., 2014), an adapted version for middle and high school pre-service teachers in Canada (Carr et al., 2018), cultural adaptations for educators in primary and secondary schools in African countries (Kutcher et al., 2015; 2016), and a study comparing an online version to the traditional in-person training model for pre-service middle and high school teachers in Canada (Wei et al., 2020). Most of these studies have one-group pre-experimental designs with pre- to post-test measures (Kutcher et al., 2013; 2015; 2016; Wei et al., 2014); one study had a pre-experimental one-group design with pre-, post-, and 3-month follow-up measures (Carr et al., 2018); and one study was a quasiexperimental nonequivalent three group design with in-person, online, and control groups with pre-, post-, and 3-month follow up (Wei et al., 2020). Sample sizes for these investigations were 60 (Carr et al., 2018), 61 (Kutcher, Wei, Costa, et al., 2016), 79 (Kutcher et al., 2013), 176 (Wei et al., 2020), 185 (Wei et al., 2014), and 218 participants (Kutcher et al., 2015).

After organizing the outcomes into the KASAB framework, the included outcomes were knowledge (n = 6), attitudes (n = 6), skills (n = 2), aspirations (n = 1) and behaviors (n = 1). Across the studies, the measures utilized for knowledge and attitudes were 30-items for knowledge (i.e., 22 items on general mental health knowledge and 8 items related to the content of the Guide) and 8-items on attitudes (i.e., stigma) towards mental health and mental illness (Carr et al., 2018; Kutcher et al., 2013; 2015; 2016; Wei et al., 2014; 2020). All one-group design investigations of The Guide Professional Development Program found significant

improvement from pre- to postintervention on educators' knowledge and attitudes related to mental health (Carr et al., 2018; Kutcher et al., 2013; 2015; 2016; Wei et al., 2014) and improvement was maintained at 3-month follow up (Carr et al., 2018). Further, in their quasiexperimental nonequivalent three group design, Wei et al. (2020) found significant improvement in knowledge and attitudes for the educators who participated in the MHL intervention (i.e., in-person and online groups) compared to those who did not, which was maintained after three months. Overall, there is consistent evidence suggesting that The Guide Professional Development Program improves educators' mental health knowledge and attitudes.

The other KASAB domains of skills, behaviors, and aspirations were evaluated less often for The Guide Professional Development Program. The two investigations that included skills as outcomes focused on help-seeking skills and intentions (Carr et al., 2018; Wei et al., 2020). Carr et al. (2018) found significant improvements in help-seeking skills and intentions immediately after the intervention and remained at a 3-month follow up. However, in their quasiexperimental nonequivalent three group design study, Wei et al. (2020) found that participants in the MHL intervention had greater improvement in helping skill intentions compared to the control group, but this was not maintained three months later (Wei et al., 2020). Finally, Kutcher et al. (2016) included questions to measure educator aspirations (i.e., personal comfort levels in addressing mental health needs of students) and behaviors (i.e., educators' self-report of their behaviors in identifying individuals with mental health problems and use of helping strategies in the six months since their initial MHL training). The authors did not find any significant changes in educators' aspirations, but they noted that educators' aspirations were already high at baseline and were maintained throughout the intervention, potentially with a ceiling effect limiting potential for improvement. As for behaviors, most participants indicated that they had identified

and/or advised students, peers, friends, or family to seek professional help for mental health since their initial training (Kutcher, Wei, Costa, et al., 2016).

Although there is evidence suggesting that The Guide Professional Development Program improves educators' knowledge, attitudes, and potentially improves skills and behaviors, there are some limitations to the extant research. Similar to the literature on Y-MHFA, prior investigations are limited by the predominance of one-group, pre-experimental study designs, which cannot conclusively determine that the improvements pre- to postintervention were solely due to the MHL intervention. Additionally, there were only two studies that investigated the sustainment of impacts beyond immediately postintervention by including 3-month follow-up measurements (Carr et al., 2018; Wei et al., 2020). Although improvements in mental health knowledge and attitudes were maintained from baseline, there were mixed effects in whether improvements in skills were maintained three months after the intervention.

Go-To Educator Training Outcomes

There are only three investigations of the Go-To Educator Training (Kutcher & Wei, 2013; Wei & Kutcher, 2014; Wei et al., 2020). The first study evaluated the Go-To Educator Training when it was initially developed as one of multiple components of a School-Based Pathway to Care Model in a rural Canadian high school (Kutcher & Wei, 2013). This evaluation had one group of 12 educators complete a survey on mental health knowledge at pre-, post-test, and 3-month follow-up. There were no details included about the survey items except that they were developed for that study. Educators who experienced the training significantly increased their knowledge from pre- to post-test, and preintervention to 3-month follow up. Additionally, a

subset of educators participated in immediate post-test focus groups to provide feedback on the training content.

Two of the studies describe program evaluations with pre-experimental study designs where one group of educators received the training and completed pre- and post-test measures (Wei & Kutcher, 2014; Wei et al., 2020). The investigation by Wei and Kutcher (2014) focused on 134 secondary school educators from 40 schools in one school district in Canada, and Wei et al. (2021) summarized findings from trainings for 949 Canadian junior high and high school educators across six provinces. Both studies used the same survey that included 30-items of knowledge and 8-items of attitudes towards mental illness (i.e., stigma) and found statistically significant improvements in educators' knowledge and attitudes from pre- to postintervention.

These evaluations provide support that the Go-To Educator Training may improve educators' knowledge and attitudes about mental health; however, there are some notable limitations of the existing research. First, the investigations are one-group pre-experimental studies, so there is a need for rigorous, experimentally designed studies or studies utilizing control groups investigating the Go-To Educator Training. All three investigations included outcomes in the areas of knowledge and two included attitudes immediately postintervention. There are limitations in knowing how long these impacts last in the areas of knowledge and attitudes and further research could explore the potential impacts of this intervention on the other MHL outcome domains (i.e., aspirations like mental health self-efficacy, skills, behaviors).

Educator Experiences with MHL Interventions

In addition to understanding the impact of MHL interventions on key MHL-related outcomes, there is value in understanding educator experiences during and after MHL interventions to investigate whether the interventions are socially valid. Social validity is based

on the idea that consumers of an intervention and other stakeholders beyond the deliverers of an intervention should be involved in the evaluation the intervention (Storey & Horner, 1991). Social validity was originally conceptualized as the social significance of program goals, social appropriateness of procedures, and social importance of program outcomes (Wolf, 1978). In other words, the goals of the intervention should be wanted by stakeholders, the procedures must be acceptable and feasible, and after the intervention, those involved should be satisfied (Leko, 2014). Training satisfaction represents the extent to which participants report positive experiences and perceive training content to be relevant and useful (Childs et al., 2020). Training satisfaction is described as including satisfaction with the training session, training content, the trainer, and the ability to transfer learning to work (Latif, 2012). Notably, satisfaction is a valuable variable to consider in addition to MHL intervention effectiveness, particularly since a recent investigation of Y-MHFA found that educator training satisfaction significantly and positively impacted learning outcomes (Childs et al., 2020).

Over half of the educator MHL intervention studies reviewed did not seek input from their participants on their experiences with or feedback about the MHL intervention (Aakre et al., 2016; Carr et al., 2018; Haggerty et al., 2019; Jorm et al., 2010; Kelly et al., 2011; Kutcher et al., 2015; 2016; Rose et al., 2019; Wei et al., 2020). Of the studies that reported educator feedback on Y-MHFA, two gathered immediate post-training satisfaction and utility information (Gryglewicz et al., 2018; Kidger et al., 2016) and one included follow-up interviews gathering educators' experiences incorporating new information into their lives (Morawska et al., 2013).

To study educator satisfaction with Y-MHFA, Gryglewicz et al. (2018) included seven items on a 5-point scale on their post-survey, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The items included: "the training was culturally sensitive," "the training helped increase

my confidence in my ability to be culturally sensitive with youth populations," "I liked the MHFA training," "the training met my expectations," "I felt comfortable with the content covered in this training," "the information learned in this training will be easy to integrate in my work," and "the trainer was engaging." Across all items, the average response was between 4 and 5, indicating that on average educators were between *agree* and *strongly agree*, suggesting high levels of overall satisfaction. Kidger et al. (2016) conducted interviews and focus groups with educators that asked about the utility of Y-MHFA and ways to improve it. Overall, participants shared that the intervention was useful to confer new knowledge and skills, reassure educators about their current practices, and provide useful opportunities for colleagues to discuss how to support students with mental health needs. As for suggestions for improvement, educators wanted the course to be shorter, to reduce the focus on facts about mental health disorders, and increase time spent on skills and strategies educators can use to support students.

Morawska et al. (2013) interviewed a subset of educators in their sample six months after Y-MHFA training to gather feedback about the course and information about their experiences interacting with individuals with mental health problems after the training. A large majority of their participants reported that they were in contact with someone with a mental health problem in the past six months and most stated that they offered assistance. Researchers identified three themes for barriers for those that did not offer help. The barriers included those pertaining to the helper (e.g., feeling uncomfortable), the person (e.g., resistance, denial), and the environment (e.g., getting help in another way).

Some of the investigations of The Guide Professional Development Program and the Go-To Educator Training also gathered information on educator experiences with the interventions (Kutcher & Wei, 2013; Kutcher et al., 2013; Wei & Kutcher, 2014; Wei et al., 2014; 2021).

Kutcher et al. (2013) reported workshop evaluation information for The Guide Professional Development Program for a subset of their participants and there was an overall positive response. The average of educators' ratings for the training was between excellent or very good in terms of how helpful it was for their classroom application of the curriculum for youth. Participants also said the teacher training was relevant to their professional role and everyday practice. Another evaluation of The Guide Professional Development Program included five items for educators to rate on a six-point scale from 0 (*very poor*) to 5 (*excellent)* during the immediate post-training survey (Wei et al., 2014). The average of ratings were between *very good* and *excellent* for all of the following items in both studies: "I found the workshop useful and informative", "I found the speaker(s) to be of high quality", "I learned information and concepts that will be helpful to me in my work", "I would recommend this workshop to my colleagues", and "I would rate this workshop overall."

The first investigation of the Go-To Educator Training included immediate focus groups after the intervention with educators to understand areas for improvement of the content of the intervention. Educators requested more in-depth information related to mental health services system navigation and additional mental health resource toolkits, which then informed further iterations of the training (Kutcher & Wei, 2013). The other two investigations of the Go-To Educator Training gathered participant satisfaction ratings in six areas across a six-point scale from 0 (*very poor*) to 5 (*excellent*) during the immediate post-training survey (Wei & Kutcher, 2014; Wei et al., 2021). Five of the items replicated those in Wei et al.'s (2014) evaluation of The Guide Professional Development Program. The additional item was "I enjoyed the workshop." The average ratings were between *very good* and *excellent* for all the items in both

evaluations. Educators included suggestions for improvement and the only consistent suggestion was to offer the course over multiple days instead of one day (Wei & Kutcher, 2014).

Summary of MHL Interventions for Educators

This brief review provides insight into the available MHL interventions for educators by reviewing Y-MHFA, The Guide Professional Development Program, and the Go-To Educator Training. Notably, there is some variability across studies reviewed in their design, which is necessary to consider when wanting to understand the effectiveness of MHL interventions. Most studies were pre-experimental (Carr et al., 2018; Gryglewicz et al., 2018; Haggerty et al., 2019; Kutcher & Wei, 2013; Kutcher et al., 2013; 2015; 2016; Morawska et al., 2013; Wei & Kutcher, 2014; Wei et al., 2014). There was one quasi-experimental study that included three nonequivalent groups of educators that were not randomized or matched (Wei et al., 2020). There were two cluster randomized controlled trials of Y-MHFA (Jorm et al., 2010; Kidger et al., 2016). A primary limitation of this existing research is that any noted improvements in mental health-related outcomes could not conclusively result only from the MHL interventions. Further, the lack of investigations including follow-up time points limits understanding of whether the impacts of the MHL interventions sustain over time.

Overall, each of the three MHL interventions has some evidence supporting its use to improve educator outcomes within the domains of the KASAB framework (Killion, 2018). Y-MHFA was found to improve educators' mental health skills and knowledge, with some evidence of improvements in attitudes and aspirations, and limited quantitatively measured effects on behaviors (Sánchez et al., 2021). The Guide Professional Development Program has consistent support across studies that it is related to improvements in educators' knowledge and attitudes, and potentially improves skills and behaviors, but the latter KASAB domains were not

investigated in most of the studies (Carr et al., 2018; Kutcher et al., 2013; 2015; 2016; Wei et al., 2014; 2020). Finally, the Go-To Educator Training has only been studied with regard to its impact on educator knowledge and attitudes and although it was found to relate to improvements, there is a need to consider its effects on outcomes within the other KASAB domains, like educator aspirations or self-efficacy (Kutcher & Wei, 2013; Wei & Kutcher, 2014; Wei et al., 2021). The limited evidence for significant impacts of MHL interventions on educator behavior is an area for further investigation as it may be due in part to limited studies including behavior outcomes, a lack of follow up measurement in evaluation studies, difficulties of existing measures to detect behavior change, or characteristics of the existing MHL interventions. Behavior outcomes are important to consider, especially since MHL interventions are proposed as avenues to empower people to act (Jorm, 2012) and MHL interventions for adults on youth mental health are often discussed in the context of adults' gatekeeping access to mental health supports (e.g., Gryglewicz et al., 2018).

Most studies reviewed did not investigate educators' experiences during or after the MHL interventions. Of the studies that did report information about educator experiences, it was primarily immediate postintervention satisfaction ratings on Likert Scale items, where all three MHL interventions were rated positively (Gryglewicz et al., 2018; Kutcher et al., 2013; Wei & Kutcher, 2014; Wei et al., 2014; 2021). These quantitative results alone do not sufficiently describe educator experiences and perspectives on the social validity of these interventions. There were two studies that utilized interviews or focus groups and found that overall educators thought the respective interventions were useful and then gave ways to improve the interventions (Kidger et al., 2016; Kutcher & Wei, 2013).

Only one study investigated educators' experiences incorporating information from their MHL training into their lives afterwards by interviewing participants six months after Y-MHFA training (Morawska et al., 2013). Educators shared their experiences interacting with individuals with mental health problems after the training and barriers (e.g., resistance) they encountered when trying to incorporate information from the MHL training into their interactions. Overall, there is a need for future research to utilize qualitative methodology with participants. This could provide useful feedback for intervention developers and implementers on the applicability of the training content into educators' work.

Virtual Professional Development

The number of online professional development opportunities for educators has increased since the COVID-19 pandemic (Carrillo & Flores, 2020). Virtual formats have been a method of delivery utilized for MHL interventions (MentalHealthLiteracy.org, 2022; National Council for Mental Wellbeing, 2022). Formal online professional development for teachers can be delivered in a few modalities. Synchronous distance learning involves instructors and professional development participants sharing a virtual space together with the aim of creating experiences similar to traditional face-to-face learning situations (Dash et al., 2012; Meyer et al., 2023). Asynchronous distance learning and self-paced online courses are two modality options that allow participants to work through course requirements at an individual pace, given that there is no synchronous time with the course instructor and other participants required (Dash et al., 2012; Meyer et al., 2023). All of these virtual professional development options can reduce barriers to participating in professional development by providing access to learning materials without limitations on time or location, and typically have reduced costs in comparison to in-person (e.g., costs to commute, childcare; McConnell et al., 2013; Meyer et al., 2023).

However, there are challenges in online professional development for educators, particularly around engagement. During online professional development, if educators are passively consuming the training information without actively engaging with the material, they can lose their attention, which may lead to distraction and early dropout (Geri et al., 2017; Hollis & Was, 2016). Research shows that effective professional development incorporates active learning rather than passive engagement, so it is important to attend to the extent to which online professional development encourages active engagement (Darling-Hammond et al., 2017). After a systematic review on aspects of online professional development that contribute to educators' learning, Carrillo and Flores (2020) confirmed the importance of educators actively engaging with learning materials for quality online professional development and identified that educators learn best when content is relevant, collaboration is fostered, and instructors set clear expectations.

Research suggests that online PD can contribute positively to teachers' professional learning on a variety of topics, like antiracist equity-focused mindset and practices (Buttimer et al., 2022), inquiry-based science teaching (Chandran et al, 2021), and mathematics pedagogical content knowledge and practices (Dash et al., 2012), to name a few. Educators report positive perceptions and satisfaction with online professional development (Meyer et al., 2023). For example, educators who participated in an online professional development workshop in 2020 rated their experiences at a comparable level of quality to those who participated in an in-person version of the same professional development program the years prior (Chandran et al., 2021).

Specific to the topic of MHL, there has been one evaluation that compared in-person and asynchronous online learning of The Guide Professional Development Program (Wei et al., 2020). Educators who engaged in the online and in-person formats had statistically significant

improvements in mental health knowledge, mental health disorder stigma, and help-seeking intentions than educators in a control group, and there were no statistically significant differences between the two intervention groups. This provides initial support for the use of an online delivery model for MHL trainings, yet there is value in further investigating online delivery methods to determine effectiveness for MHL interventions. Other areas for future exploration include understanding educators' satisfaction with synchronous and asynchronous formats.

Conclusion and Need for Current Study

In the decades since the origin of MHL in 1997, a variety of MHL interventions focused on youth mental health have been developed and tested with educators. Increasing educator MHL is considered critical due to the gatekeeping role of adults in supporting youth with their mental health and influencing the pathway to accessing mental health services (Gryglewicz et al., 2018; Nadeem et al., 2011; Stiffman et al., 2004) as well as the role of educators in supporting SMH efforts. It is evident from this review that there are multiple future research directions to investigate MHL interventions with educators. First, there is a need to further investigate the efficacy of MHL interventions for teachers delivered via online synchronous and asynchronous formats, especially since these formats have been a method of delivery utilized since the COVID-19 pandemic (MentalHealthLiteracy.org, 2022; National Council for Mental Wellbeing, 2022). Importantly, investigations should consider educator satisfaction and feedback with the virtual delivery approaches.

There is also a need for rigorous, experimentally designed studies investigating the impacts of MHL interventions for educators on outcomes across the domains of KASAB (i.e., knowledge, attitudes, skills, aspirations, and behaviors). This review highlighted a predominance of pre-experimental studies using one group of participants, who participated in a MHL

intervention and were asked to complete pre-, post-, and sometimes follow-up measures. Although studies using this design provide initial insights into the promise of MHL interventions on improving educators' MHL, there is a need to utilize experimental study designs to better determine the efficacy of MHL interventions. Additionally, there was great variety across studies in the validity and reliability of outcome measures utilized, their distribution across the domains of KASAB, and the amount of follow up measurement. Future research directions with MHL interventions include continuing to replicate examinations of the extent to which MHL interventions improve educator MHL knowledge and reduce stigma, since both are foundational to recent conceptualizations of MHL and the purpose of these intervention programs (Kutcher, Wei, & Coniglio, 2016), and then incorporating some of the less studied KASAB outcomes (i.e., aspirations or self-efficacy, skills, behaviors) to better understand the impact of MHL interventions. Relatedly, two of the three MHL interventions reviewed, The Guide Professional Development Program and the Go-To Educator Training, have primarily been investigated with Canadian educators by the original intervention development team. The evidence-base for the generalizability of these interventions could be improved through replications in new contexts by independent researchers.

Finally, there is a need for research investigating educator experiences with MHL interventions during and after completion of trainings. This may include incorporating MHL intervention social validity measures into intervention evaluations and gathering feedback on ways to improve MHL interventions. This also includes learning from educators about their experiences incorporating MHL content into their daily behavior and work after training. UTB provides a framework and helpful starting point for the types of potential factors that could be influencing intentions to engage in supportive behaviors from MHL interventions and the

transition of intention to action (Smith et al., 2021). However, this current review only found one study that ascertained a few barriers to educators incorporating MHL content from Y-MHFA intervention into their lives but did not consider facilitators (Morawska et al., 2013). There is a need for further research explicitly focused on learning from educators about what influences the extent to which they incorporate MHL content in their work. UTB suggests that salience, constraints, habits, and knowledge/skills can influence the enaction of intentions into behaviors; yet these have not been investigated in relation to MHL-informed behaviors for educators. Incorporating qualitative inquiry into future study designs has been highlighted as a way to explore barriers to parents' using MHL information (Morgan et al., 2019) and lack of educator behavioral change after MHL interventions (Sánchez et al., 2021). A qualitative approach could explore these topics and center participants' experiences and voices (Creswell, 2007).

Purpose of the Current Study

This study integrates multiple future research directions by conducting the first randomized controlled trial with an embedded mixed-method design evaluating the impact of the Go-To Educator Training (Wei & Kutcher, 2014) with U.S. educators of middle school students delivered by online methods. The Go-To Educator Training was selected for this investigation out of the three MHL interventions because the training content is focused on teaching educators how to support students with mental health disorders within their schools and classrooms, rather than having a primary focus on mental health crisis support in Y-MHFA or including content the delivery of a youth MHL intervention, which is included in The Guide Professional Development Program. This work builds upon and extends the three prior investigations by the intervention developers and investigates its efficacy with educators in the U.S. (Kutcher & Wei, 2013; Wei & Kutcher, 2014; Wei et al., 2021).

Prior studies of the Go-To Educator Training utilized pre-experimental, one-group pre- and post-test designs with primarily quantitative methods and found that secondary school educators' knowledge of mental health improved from pre- to postintervention (Kutcher & Wei, 2013; Wei & Kutcher, 2014; Wei et al., 2021) and sustained at 3-month follow up (Kutcher & Wei, 2013). In the two studies that included stigma as an outcome, educators' stigma of mental illness significantly improved from pre- to postintervention (Wei & Kutcher, 2014; Wei et al., 2021). The impact of the Go-To Educator Training on educator mental health self-efficacy, skills, and behaviors (i.e., aspirations, skills, behaviors from KASAB) has not been investigated. Additionally, educators rated the Go-To Educator Training as satisfactory (Wei & Kutcher, 2014; Wei et al., 2021) and provided some suggestions to improve the intervention content (Kutcher & Wei, 2013; Wei & Kutcher, 2014). The intervention developers indicated educators' feedback was to be added into future iterations of the training content slides (Kutcher & Wei, 2013). Also, the most consistent suggestion for improvement was to offer the course over multiple days instead of one day, which is honored in this investigation (Wei & Kutcher, 2014).

Utilizing embedded mixed methods poses a primary benefit of gaining a deeper and broader understanding of educator experiences by integrating findings from quantitative pre- and postintervention surveys and qualitative postintervention focus groups (McCrudden et al., 2019). The quantitative portion of this study measures the intervention's impact on educators' MHL in the areas of knowledge, stigma, and self-efficacy related to youth mental health through survey-based measures to allow comparison with previous research. This serves as a replication of previous research on the impact of the in-person delivery of the intervention on Canadian educators' knowledge and attitudes, but with an online delivery of the intervention with an American population of educators. Further, this study extends the research to investigate

potential impacts of the Go-To Educator Training on educators' mental health self-efficacy. Based on prior literature of other MHL interventions (e.g., Sánchez et al., 2021 for Y-MHFA) there is the potential for improvement in educator mental health self-efficacy, but this is unexplored with the Go-To Educator Training. The qualitative portion of this study utilizes follow-up focus groups and interviews with a subset of intervention participants to explore in more detail the results and add information about participant experiences during and after the intervention (Creswell & Plano Clark, 2018). Educators are asked open-ended questions about their experiences, the impacts of the Go-To Educator Training on their knowledge, attitudes, and self-efficacy around mental health, behavioral change, and influences on behavioral change.

In addition to better understanding the efficacy of the Go-To Educator Training on educator MHL outcomes and educator experiences after the intervention, this study aims to better understand educator perceptions of the social validity of the intervention. Prior investigations indicate that educators deem the Go-To Educator Training as satisfactory (Wei & Kutcher, 2014; Wei et al., 2021). This study uses survey items and open-ended questions to describe U.S. educator satisfaction of their training and the extent to which the Go-To Educator Training is considered relevant. Using qualitative methods along with quantitative surveys of social validity is a more comprehensive approach that capitalizes on the strengths of both approaches to gain a more in-depth understand of educator perspectives (Leko, 2014). Educators are also asked about their perspectives on the strengths and areas to improve of the intervention.

The research questions are below. Hypotheses are included for quantitative research questions and not qualitative research questions below:

1. What are the impacts of the Go-To Educator Training on educators' MHL knowledge, stigma, and self-efficacy as measured by pre- and postintervention

surveys?

Hypothesis: Educators assigned to participate in the Go-To Educator Training will statistically significantly increase their MHL knowledge, decrease their mental health stigma, and increase their mental health self-efficacy compared to educators in the control group.

2. How do educators make sense of the information received from the Go-To Educator Training and describe the potential impacts on their knowledge, stigma, self-efficacy, and behaviors during postintervention focus groups?
3. How do educator perspectives on the impacts of the Go-To Educator Training from focus groups compare to survey-based outcome measures?
4. What factors influence the extent to which the Go-To Educator Training impacted educators' mental health supportive behaviors during postintervention focus groups?
5. What are educators' perceptions of the strengths and areas to improve of the Go-To Educator Training from postintervention focus groups?
6. To what extent do educators perceive the Go-To Educator Training as socially valid based on survey-based measures and focus group perspectives?

   Hypothesis: Educators who participated in the Go-To Educator Training will rate it with high satisfaction.

Chapter III: Method

Research Design

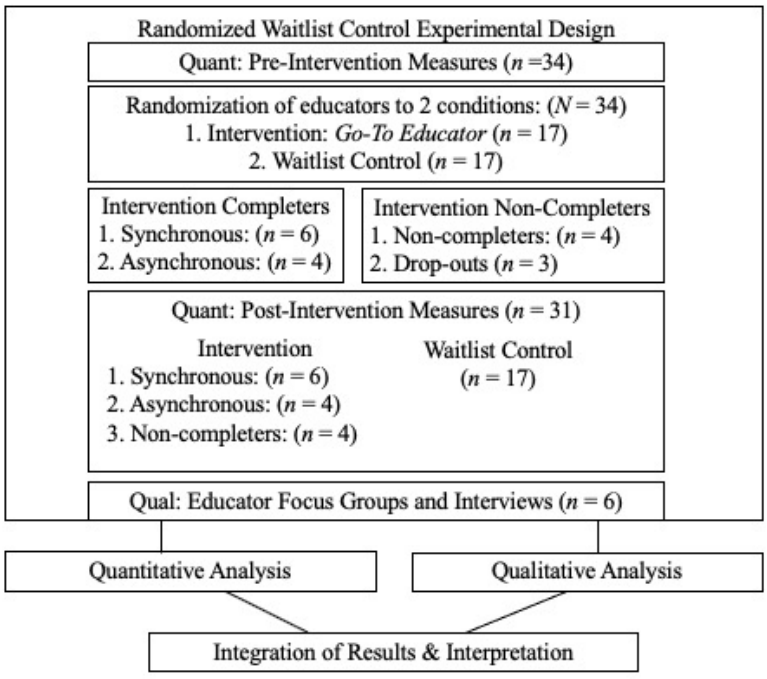
This study utilized a mixed methods experimental design with a qualitative method embedded within a larger quantitative experimental design, which can be denotated as QUAN(→qual), to best understand educator experiences with the Go-To Educator Training (Creswell & Plano Clark, 2018; DeCuir-Gunby & Shutz, 2017). As described in the mixed methods notation capitalization, this study placed greater emphasis on the quantitative component (i.e., "QUAN") than the qualitative (i.e., "qual"), the qualitative portion of the study was embedded within the experimental design (i.e., parentheses), and the quantitative methods occurred first and the qualitative data collection followed to gain more detail (i.e., "→"; Creswell, 2009; Morse, 2003). The intent of adding qualitative data into the experimental intervention design was to better understand educators' subjective experiences of the intervention and to explore how qualitative information compares with quantitative findings (Creswell & Plano Clark, 2018).

The quantitative experimental design was a randomized waitlist controlled trial (RCT) to further examine the efficacy of the Go-To Educator Training with educators of middle school students. Educators were individually randomized using constrained randomization to ensure an equal number of 17 participants were assigned to one of the two conditions: intervention (i.e., Go-To Educator Training) and waitlist-control. Quantitative data was collected from pre- and postintervention survey measures. Qualitative data was gathered from a sample of six educators who participated in the intervention and agreed to engage in postintervention focus groups or interviews. After quantitative and qualitative data collection and separate analyses, data was integrated through sequential integration, where the qualitative findings were compared to the

findings from the pre- and postintervention surveys for the MHL outcomes and the social validity of the intervention. See Figure 4 for a graphical representation of the research design.

Figure 4

Mixed Methods Waitlist Randomized Controlled Trial



Note. This diagram illustrates the linear process of the study, with the quantitative portion happening first and the qualitative focus groups embedded within the larger RCT design.

Power Analysis

Power analyses were conducted using G*Power 3.1 software (Faul et al., 2007) to set a target sample size. The power level to solve for was set at a power level (1- β) of .80 and alpha = .05 (two-tailed). Estimates of effect sizes were gathered based on averaging effect sizes that were available from prior, relevant research on educator MHL interventions for each of the three quantitatively measured outcomes of knowledge (d = 1.945), stigma (d = 0.598), and self-

efficacy (d = 0.360). Of note, since there have not been investigations of the Go-To Educator Training on mental health self-efficacy, the effect size estimate utilized was from a meta-analysis of Y-MHFA with educators (Sánchez et al., 2021). From the power analyses for each outcome measure, the total sample sizes needed to detect the estimated effects included 12 for knowledge, 90 for stigma, and 246 educators for self-efficacy. Balancing the sample size estimates with the practical constraints of the study as a small-scale test of efficacy, it was determined that the target sample size would be a total of 40 educators. Thus, the study intended to be powered to detect effects within the range of relevant prior studies for knowledge but underpowered to detect effects for stigma and self-efficacy outcomes.

Total attrition in prior investigations of the *Go-To Educator Training* ranged from 8.01% to 10.45%, with an average attrition rate of 9.23% (Wei & Kutcher, 2014; Wei et al., 2021). Based on this attrition rate and the target sample size identified from the power analyses, this study planned to account for a total attrition rate of 9.23% by aiming to oversample by four additional educators. Based on the power analyses and attrition considerations, the total target sample size was 44 educators, with 22 educators per group.

Participants

Participant Recruitment

Recruitment took place in K-12 school districts in Wisconsin across the four locale types of city, suburb, town, and rural based on the criteria from the National Center for Education Statistics (NCES; Geverdt, 2017). This approach was utilized because past evaluations of the Go-To Educator Training implemented the intervention in schools across six Canadian provinces, including different locales (Wei et al., 2021). To gain district approval, information about the study was included in two Wisconsin organizations' newsletters targeting Wisconsin

administrators and 121 district administrators were directly contacted by email. Administrators from 32 districts provided approval to recruit educators within their district for the study. District administrators distributed a recruitment letter and flyer to middle school educators via their method of choice (e.g., email, postings, meeting announcements). Middle school educators were defined as any school staff member who had regular, direct interactions with middle school (i.e., fifth, sixth, seventh, or eighth grade) students. Along with information about the study, recruitment materials included a direct link to an online Qualtrics form where interested educators completed the consent process and initial demographic form.

Participant Characteristics

Although the target number of participants was 44 educators, due to recruitment challenges, a total of 34 educators consented to participate in the study from 19 school districts in Wisconsin. The 19 school districts were from 13 Wisconsin counties and there was representation of school districts across the four locale types of city, suburb, town, and rural based on the criteria from the National Center for Education Statistics (NCES; Geverdt, 2017). Tables 2 and 3 include a summary of some publicly available school district characteristics, including student demographics from the 2021-2022 school year and staffing reports from 2022-2023 school year. Table 2 includes school districts identified as rural and Table 3 includes school districts defined as town, suburb, and city locales. The school districts varied in size with a range of total students served from 244 to 9,203 students. An estimated ratio of student services staff to total students was calculated for each district by combining the full-time-equivalence of school counselors, school social workers, school psychologists, and social-emotional behavioral interventions and supports staff listed for each district from the Wisconsin Department of Public Instruction's All Staff Report (2023) and comparing to the total students from the Wisconsin

Department of Public Instruction's Fall Pupil Count (2022). The ratio ranged from 1 student services staff member to 107 students to 1 student services staff member to 368 students.

Table 2

Rural School District Characteristics

School District	D1	D2	D3	D4	D5	D7	D11	D13	D16	D18	D19
Number of participants enrolled	1	1	1	2	1	1	1	3	1	2	3
Locale Descriptor [a]	Rural: Distant	Rural: Remote	Rural: Distant	Rural: Remote	Rural: Remote	Rural: Remote	Rural: Distant	Rural: Distant	Rural: Distant	Rural: Distant	Rural: Fringe
Total Students[b]	846	359	1061	828	501	257	776	576	390	314	4653
Percentage of Students											
American Indian or Alaskan Native[c]	0	0	0.2	30.5	0.4	0	0	0.5	0	0	1.2
Asian[c]	0	0	0.3	0.1	0.2	0	0	1.2	0	0	5.1
Black or African American[c]	0.2	1.6	2.4	0.5	0.2	2.5	1.2	0.8	0.2	0	1.9
Hispanic/Latino[c]	5.7	1.9	15.5	2.8	5.5	2.5	1.8	3.3	0.7	3.3	6
Native Hawaiian or Other Pacific Islander[c]	0	0	0.1	0	0	0	0	0.2	0	0	0
White[c]	91.9	95.6	79.4	54.6	91.5	91.8	94	90.4	98.8	96	81.1
Two or More Races[c]	2.2	0.8	2.1	11.6	2.2	3.3	3	3.6	0.2	0.7	4.7
Students with Disabilities[c]	11.1	15.8	14	16	14.4	19.3	12	17.2	14.3	15	17.2
Economically Disadvantaged[b]	25.5	51.9	41.8	40	37.4	53.7	22.8	48.5	28.4	28.2	53.3
English Language Learners[c]	2.6	0.5	6.9	0.2	0.9	0.4	0.1	0.3	0	0	2.7

FTE Classroom Teachers[a]	61.31	32.84	71.28	66.37	45.02	26.51	59.17	53.3	39.35	29.76	355.01
FTE School Counselors[d]	1.8	1	2	3	2	1	2	2	2	1	16.4
FTE School Social Workers[d]	0	0	1	0	0	0	0	0	0	0	4.7
FTE School Psychologists[d]	0.5	0	1	1	1	0	0.9	0.5	0.5	0.45	7.4
FTE Social-Emotional Behavioral Interventions and Supports[d]	0	0	0	0	1.7	0	1	0	0	1	6.25
Ratio of student services staff to students	1:368	1:359	1:265	1:207	1:107	1:257	1:199	1:230	1:156	1:128	1:134

[a] National Center for Education Statistics 2021-2022 data. [b] Wisconsin Department of Public Instruction Fall Pupil Count 2022 data [c]Wisconsin Department of Public Instruction School & District Report Cards 2021-2022 data. [d]Wisconsin Department of Public Instruction All Staff Report 2022-2023 data.

Table 3

Town, Suburb, and City School District Characteristics

School District	D6	D8	D9	D10	D12	D14	D15	D17
Number of Participants Enrolled	1	1	2	3	4	1	2	3
Locale Descriptor [a]	Suburb: Midsize	Town: Distant	Town: Fringe	Town: Fringe	Town: Fringe	Town: Remote	City: Small	Town: Distant
Total Students[b]	3889	990	1491	915	2387	443	9148	1570

Percentage of Students								
American Indian or Alaskan Native[c]	0.3	0	0.5	0.4	0.1	0.2	0.4	0.1
Asian[c]	8.1	0.3	1.6	2	1	0	7.9	3
Black or African American[c]	0.7	1.5	0.4	3.8	1.1	1.6	7.1	4.9
Hispanic/Latino[c]	2.1	2.5	4.6	20.5	3.9	2.5	7.2	5
Native Hawaiian or Other Pacific Islander[c]	0	0	0.1	0	0	0	0	0.1
White[c]	85.3	93.8	89.9	66.4	90.4	92.3	70.2	82.1
Two or More Races[c]	3.6	1.9	3	6.9	3.5	3.4	7.1	4.8
Students with Disabilities[c]	12.8	18.7	13.9	12.3	11.9	15.8	15.6	12.1
Economically Disadvantaged[b]	25.2	38.8	18.3	41.8	12.4	42.9	42.5	40
English Language Learners[c]	3.4	1.1	2.3	10.6	1.4	0	5.8	1.8
FTE Classroom Teachers[a]	301.75	78.04	112.05	91.58	169.71	32.11	778.58	110.35
FTE School Counselors[d]	12	3	2.6	3	5	1.5	32	5.6
FTE School Social Workers[d]	2	0	2	2	3	0	9.4	1.6
FTE School Psychologists[d]	6	0	1	1	3.5	0.14	9	1
FTE Social-Emotional Behavioral Interventions and Supports[d]	5	0	0	0	0	0	0	0
Ratio of student services staff to students	1:156	1:330	1:266	1:153	1:208	1:270	1:182	1:191

[a] National Center for Education Statistics 2021-2022 data. [b] Wisconsin Department of Public Instruction Fall Pupil Count 2022 data

[c]Wisconsin Department of Public Instruction School & District Report Cards 2021-2022 data. [d]Wisconsin Department of Public Instruction All Staff Report 2022-2023 data.

The overall study included 34 middle school educators, with 17 assigned to intervention and 17 assigned to control (see Table 4 for demographics). Most participants identified as female, White, and not Hispanic or Latino. Half of the participants endorsed that they personally had a mental health disorder diagnosis. Educators who participated in the study included 27 general education teachers, five special education teachers, one school counselor, and one individual who was a mental health navigator and behavior interventionist. Approximately half of the participants had completed some graduate coursework or a master's degree and the average years of experience in education was 10.56 years. Prior to enrolling in the study, approximately 47% of participants had experienced mental health professional development in the past. When asked to describe what kinds of prior mental health trainings, participants reported a variety of experiences, including having taken undergraduate coursework in psychology or social work, workshops on mental health topics relevant to schools (e.g., trauma-based approaches for working with students, mindfulness, social emotional learning), community trainings with the National Alliance on Mental Illness, and Y-MHFA.

Table 4

Demographic Characteristics of Educators

	% Total (N = 34)	% Intervention (n = 17)	% Control (n = 17)
Mean (*SD*) age*	37.66 (10.66)	35.15 (9.79)	39.69 (11.21)
Gender			
Female	91.2	94.1	88.2
Male	8.8	5.9	11.8
Race			
White	97.1	94.1	100.0
White and American Indian/Alaska Native	2.9	5.9	0
Ethnicity			
Not Hispanic or Latino	100.0	100.0	100.0

Reported mental health disorder diagnosis	50.0	41.2	58.8
Highest degree earned			
Bachelor's degree	50.0	58.8	41.2
Some graduate coursework	2.9	0	5.9
Master's degree	47.1	41.2	52.9
Role as educator			
General Education teacher	79.5	88.2	70.6
Special education teacher	14.7	11.8	17.6
School counselor	2.9	0	5.9
Mental health navigator/behavior interventionist	2.9	0	5.9
Mean (SD) years in education field	10.56 (8.75)	10.59 (9.41)	10.53 (8.33)
Experienced mental health professional development in the past	47.1	35.3	58.8

*For the variable of age, $N = 29$, with $n = 13$ for intervention and $n = 16$ for control.

For the qualitative portion of the study, 10 educators who were assigned to the intervention group and completed the intervention were invited to participate in a focus group or interview approximately one month following intervention completion. Six participants consented to participate. Within qualitative research, there is not a clear guideline for how to determine the most appropriate number focus groups or interviews with participants needed (Carlsen & Glynton, 2011; Guest et al., 2016). One guideline that some qualitative researchers use is to have at least two focus groups for a defined group (i.e., participants in intervention) to ensure a breadth of perspectives is included, while also creating a manageable sample size (Guest et al., 2016). This study planned to invite additional participants if questions arose during focus groups that suggested there was insufficient coverage (e.g., a lack of clarity in certain areas, educators' who report uncertainty about their responses). However due to constraints of the sample size of participants who completed the intervention and participant interest in the focus groups and interviews, the maximum final sample was 6 educators.

Research Team Positionality

The research team consisted of the primary researcher and two graduate student research assistants. The primary researcher was responsible for the implementation of the Go-To Educator Training and moderated the focus groups and interviews. One research assistant supported the project by reviewing recordings of all the training sessions and coding for fidelity to the content. Both research assistants analyzed the focus group and interview data.

Positionality refers to an individual's world outlook and their relationship to a research study (Holmes, 2020). The primary researcher is a developing scholar, researcher, and practitioner in the field of school psychology, whose interest lies in supporting children and youth's mental health and academic well-being through directly working with students and collaborating with key adults in their lives. She recognizes that her perspectives on SMH and MHL are shaped by her identities, life experiences, and graduate training. She is a white, cisgender, neurotypical woman who grew up middle-class in rural Wisconsin. Holding these identities affords her with privileges that continue to influence her educational experiences and relationship with the mental healthcare system. Notably, she had a caregiver who was a teacher with internal knowledge of school systems and school-based supports for well-being. In addition to bringing her lived experiences as a student attending Wisconsin public schools and past recipient of mental health care, she also brings perspectives as an employee and practitioner, as a past middle school educational assistant and a current school psychology student.

Specific to the area of MHL, the primary researcher underwent a Y-MHFA training and was trained as a core trainer to implement the Go-To Educator Training. She entered this research with pre-study beliefs in the potential positive value of MHL trainings for educators and recognizes that there may be ways in which her pre-existing bias and the dual roles she inhabited

as the facilitator of the Go-To Educator Training and focus group and interview moderator might have influenced the responses gathered. She aimed to acknowledge and counter her bias during focus groups and interviews by explicitly acknowledging the dual roles and stating the goal of gaining honest feedback on the training. Finally, she wants to recognize that because she is not a current educator of middle school students, there may be aspects of their roles and experiences that are difficult to fully understand and highly values the collective expertise of the educators who participated in this study.

The two research assistants were school psychology graduate students. One identifies as a white, cisgender, neurotypical woman who grew up in the suburbs of Chicago and previously practiced as a specialist-level school psychologist and district-wide mental health consultant within a preK-12 public school district. She participated on qualitative analysis teams for two other research studies, and approached this study with the awareness that prior school-based mental health experiences influenced her pre-study beliefs regarding MHL trainings and potential positive impacts for middle school educators. The second research assistant identifies as a white, cisgender, neurotypical man who grew up in the suburbs of Madison, Wisconsin and previously worked as a paraprofessional in a high school special education classroom. This was his first experience with qualitative research.

Conditions

Intervention

Educators randomized to the intervention group were invited to participate in the Go-To Educator Training facilitated by the primary researcher and to complete pre- and postintervention measures. The primary researcher completed approximately fifteen hours of training in November of 2021 to be designated as a Mental Health Literacy Core Trainer by the team that

created the Go-To Educator Training, which is currently described as the Alberta School Mental Health Literacy Project and hosted on mentalhealthliteracy.org. The intervention materials were developed by this team and shared with all core trainers. The primary intervention materials were a set of Go-To Educator Training PowerPoint slides with talking points for the training content, embedded videos, activities, and discussion prompts (see Table 5 for overview).

Table 5

Go-To Educator Training Content and Time Estimates

Section	Content	Time
1: Introduction	• Defining mental health literacy • Defining educators' role as a "Go-To Educator" • Clarifying terminology in mental health • Introducing mental health states pyramid	1 hour
2: Causes of mental health and basic epidemiology	• Learning about the prevalence of mental health disorders within the context of the classroom • Describing the complexities and science of the causes of mental health disorders as the interaction between an individual and their environment • Describing brain growth and development and how mental health disorders are associated with disturbances in brain function	1 hour
3. Treatment and supportive principles	• Understanding what evidence-based treatment means • Clarifying the purpose of treatment • Highlight school mental health frameworks and how the Go-To Educator fits in • Recognizing ways to boost mental health and well-being • Defining mental health disorder stigma • Sharing stigma myth busting	1 hour
4. Overview of common disorders and early identification strategies	• Describing common mental health disorders in youth, including: anxiety disorders, emotions and mood disorders, schizophrenia, eating disorders, post-traumatic stress disorder, attention deficit hyperactivity disorder, obsessive compulsive disorder, and substance use disorder • Understanding identification keys of mental health disorders in the school context • Describing treatments and response strategies for each common mental health disorder	4 hours

5.Connecting with caregivers	• Providing communication strategies for caregivers and families	1 hour

Note. This table includes the main sections, definitions of content, and estimations of the timeframe. The content is adapted from Wei et al. (2021).

The content of the training was adapted from the Canadian context where it was developed, to be more applicable to Wisconsin by the primary researcher. This adaptation was approved by the team at mentalhealthliteracy.org and the team lead, Andrew Baxter, MSW RSW. Adaptations included replacing Canadian-based epidemiological statistics (e.g., rates of mental illness) with U.S. and Wisconsin information, integrating descriptions of Wisconsin's comprehensive school mental health system framework (Wisconsin Department of Public Instruction, 2021) into the introduction, adding examples of mental health-related resources available by the Wisconsin Department of Public Instruction (e.g., Mental Health Stigma Reduction Toolkit), and updating the resources for further learning with U.S. and Wisconsin organizations (e.g., Wisconsin Department of Health Services, National Alliance on Mental Illness, National Center on School Mental Health).

Participants had two options to engage in the virtual Go-To Educator Training, either synchronously using the Zoom platform or asynchronously by watching recorded videos on UW–Madison Kaltura MediaSpace and completing required attendance quizzes with reflection questions on Qualtrics. The reflection questions aligned with the synchronous group discussion and reflection activities. Zoom was selected as the method for synchronous delivery to reduce barriers for educators to access the intervention sessions and because the developers of the Go-To Educator Training had adapted their intervention materials (i.e., PowerPoints) to be relevant to the virtual synchronous format. Additionally, the primary researcher's training in the

intervention was conducted virtually using Zoom and during training, delivery for virtual and in-person methods were covered. Zoom software is available for free download on smartphone, personal computers, and tablets. The zoom online videoconferencing platform offers video and audio correspondence. Screensharing capabilities were utilized during the training to present didactic content. Participants were encouraged to join the Zoom meeting from a setting that they felt comfortable, safe, and private. UW–Madison Kaltura MediaSpace was selected as a cloud-based video hosting platform for the asynchronous recordings as it included screen and webcam recording to film the training videos, the ability to upload and download copies of the slides and resources, and a user-friendly interface with functionality for mobile, tablet, and computer.

To assist in scheduling the synchronous intervention sessions, the 17 educators in the intervention group were invited to report their availability and preferences for the timing of training sessions. The eight hours of intervention content was split into four, two-hour sessions and was delivered on weeknights over four weeks in March of 2023. This aligns with past feedback from the Go-To Educator Training participants to offer the course over multiple days instead of one day (Wei & Kutcher, 2014). The synchronous training utilized the PowerPoint slides, large group discussions, and small-group discussions using breakout groups on Zoom. During the start of each training sessions, the primary researcher sent direct links to copies of the slides and resources available for download. Training session reminder emails were sent approximately 48 hours and 8 hours prior to each session.

The asynchronous training was also split into four sessions and the primary researcher used the same slides to record the training videos. Since the asynchronous training did not have large or small group discussions, the length of the asynchronous videos were approximately 90 minutes. To parallel the discussions and activities in the synchronous training, the researcher

created Qualtrics attendance quizzes with reflection questions that matched the synchronous activities. The primary researcher emailed links to the asynchronous videos and corresponding quizzes the same week of each synchronous session to intervention participants who did not attend the training. Following the release of all four asynchronous videos, up to three reminder emails were sent to participants requesting completion of videos and quizzes. Participants who engaged in the Go-To Educator Training were compensated up to $20 in gift cards if they completed all four sessions or prorated amounts based on session completion.

School-as-Usual Waitlist-Control

Educators randomized to the school-as-usual waitlist control condition were asked to complete the pre- and postintervention measures and were not invited to engage in the Go-To Educator Training during the first round in March of 2023. No limitations were placed on educators in the control group. After postintervention quantitative data collection was complete, the primary research contacted the educators in the waitlist-control condition by email three times with an offer to participate in the Go-To Educator Training synchronously or asynchronously during May or June of 2023. Participants were given two weeks to sign up for the training and sent three reminder emails. None of the waitlist-control participants signed up for the training.

Treatment Contamination

In a randomized controlled trial, treatment contamination is defined as participants within the control arm of the study receiving the intervention (Magill et al., 2019). Treatment contamination is concerning as it decreases the contrast between the intervention and control groups by making the control group similar to the active intervention group. To mitigate against contamination in this study, the study design included a wait-list control condition, as providing

the opportunity for control participants to participate in the intervention at the end is a strategy for reducing likelihood of contamination (Magill et al., 2019). Additionally, participants in the intervention condition were asked to not discuss content of the training with other educators until study completion. Materials for the intervention were also directly shared only to those in the intervention condition.

Measures

Demographic Information

A survey was used to collect educator demographic information regarding age, gender, race, ethnicity, educational level, and mental health status. Educators reported on their current employment, years of experience, and prior experience with MHL trainings. See Appendix A for a copy of the demographic form.

MHL Measures

Pre- and postintervention surveys included measures of educator MHL knowledge, stigma, and self-efficacy.

Knowledge. To assess the domain of knowledge, the Mental Health Literacy Tool for Educators (MHL-ED), was administered to educators (Wei et al., 2019). The MHL-ED was created to evaluate the impacts of the Go-To Educator Training and is a 30-item multiple choice measure (Wei et al., 2019). It was created after a literature review on mental health knowledge measures (Wei et al., 2015) and the instrument underwent an iterative development process with face and content validity established by classroom teachers, administrators, school counselors, school social workers, and youth care workers to refine the items (Wei et al., 2019). Mental health knowledge was operationalized by the instrument creators as including information about epidemiology of mental health disorders; knowledge about common mental health disorders

occurring during adolescence; etiology of mental health disorders; treatments for mental health disorders; help-seeking resources; and assessment and screening tools often used by school-based mental health professionals.

Wei et al. (2019) evaluated the MHL-ED and found a four-factor model with acceptable consistency (Cronbach's alpha = 0.85): characteristics of mental illness and treatments of mental illness (Cronbach's alpha = 0.74); assessment and diagnostic tools and treatments of mental illness internal consistency (Cronbach's alpha = 0.63); causes and risk factors of mental illness (Cronbach's alpha = 0.70); and general epidemiology of and facts about mental health and mental illness (Cronbach's alpha = 0.60). Additionally, known-groups validity was established by comparing the scores of school-based mental health professionals to classroom teachers and administrators without a mental health background, finding that the former scored significantly greater than the latter. Finally, through analysis of the percentage of respondents achieving the lowest or highest possible scores, there were not any floor or ceiling effects identified. Another use of these items with preservice teachers also had acceptable internal consistency (Cronbach's alpha = .75; Wei et al., 2020). The MHL-ED is available in Appendix B.

Stigma. To assess mental health disorder stigma, this study included three sets of items. The first set of 8-items was designed by the developers of the Guide (Milin et al., 2015), the Guide Professional Development Program (Kutcher et al., 2013), and the Go-To Educator Training (Wei et al., 2021; see Appendix C). The 8-items will be referred to as the GTE Stigma measure and were utilized in this study to have measurement consistency for the construct of stigma with prior evaluations of the Go-To Educator Training. Stigma is operationalized by the developers as personal stigma, including perspectives on the causes and treatments of mental health disorders and intended behaviors towards people with mental health disorders. The

developers describe that the GTE Stigma items were informed by theoretical models including social stigma (Jones et al., 1984) and cognitive-behavioral functioning (Thornicroft, 2006), but do not provide any additional details of the measure's development. The GTE Stigma items produce a total positive attitude score out of 56 points (7-point Likert scale times 8 questions), with a higher score indicating less mental health disorder stigma (Wei et al., 2021). The 8-item GTE Stigma measure demonstrated acceptable internal consistency in prior studies with educators undergoing the Go-To Educator Training with Cronbach's alpha ranging from 0.66 to 0.70 (Wei et al., 2019; Wei et al., 2021). Additionally, in an exploratory factor analysis, two factors were identified that accounted for 50.41% of the variance (Wei et al., 2019).

Two additional sets of items were included in this study from the Attitudes About Child Mental Health Questionnaire (ACMHQ; Heflinger et al., 2015). The ACMHQ was developed to assess perceived public stigma and personal stigmatizing attitudes related to child emotional and behavioral problems. To develop the ACMHQ, an interdisciplinary expert panel engaged in the Delphi consensus-building process to identify and prioritize critical aspects for measurement to create the initial draft of the questionnaire. Initial face validity was established by the team of experts and groups of parents of children with mental health problems provided feedback on the questions too. The original draft of the ACMHQ had 45 items, 30 focused on public stigma and 15 on personal stigma, and each is scored on a 6-point Likert scale. An exploratory factor analysis of the public stigma items loaded three factors, which the authors defined as the General Stereotypes (nine items), Community Devaluation/Discrimination (16 items), and Child Dangerousness/Incompetence (three items) subscales. The three subscales had internal consistencies ranging from .78 to .94. In a separate factor analysis, the personal stigmatizing items loaded on to one factor (Cronbach's alpha = 0.97). The authors utilized item deletion to

have a more parsimonious measure, reducing the Community Devaluation/Discrimination and Personal Attitudes subscales to 9 items, resulting in a total of 30 items on the ACMHQ.

To more comprehensively capture personal attitudes related to children's mental health in the current study, nine items were adapted from the ACMHQ Personal Attitudes subscale. The original ACMHQ personal attitudes subscale had a Cronbach's alpha of .94 when used with a sample of rural adults. Adaptions were created by the primary researcher to have clear language (i.e., changing "emotional and behavioral problems" to "mental health problems) and to be relevant to the population of educators (e.g., "a coworker" to "a volunteer in my classroom"). The full set of original and adapted items are in Table 6.

Table 6

Adaptions to the ACMHQ Personal Attitudes Subscale

Personal Attitudes Subscale Items	Adapted Personal Attitudes Items
I would rather not have the parent of a child with emotional and behavioral problems as a co-worker	I would rather not have the parent/**caregiver** of a child with **mental health problems** as a co-worker
It would be difficult for me to accept having a relative whose child has emotional and behavioral problems	It would be difficult for me to accept having a relative whose child has **mental health problems**
I would not want my child to be friends with a child who has emotional and behavioral problems	**If I were a parent,** I would not want my child to be friends with a child who has **mental health problems**
I would rather that relatives who have children with emotional and behavioral problems not attend family gatherings	I would rather that relatives who have children with **mental health problems** not attend family gatherings
I would think less positively of a child with emotional and behavioral problems	I would think less positively of a child with **mental health problems**
I would rather not have a child with emotional and behavioral problems in my child's classroom	I would rather not have a child with **mental health problems** in **my classroom**

I would rather not have a teenager with emotional and behavioral problems as a co-worker	I would rather not have a teenager with **mental health problems** as a **volunteer in my classroom**
I would not want a family who has a child with emotional and behavioral problems going to my church	I would not want a family who has a child with **mental health problems** going to **school and community activities**
If I were an employer, I would be reluctant to give a teenager with emotional and behavioral problems a job	If I were an employer, I would be reluctant to give a teenager with **mental health problems** a job

Note. Adaptations by the primary researcher are in bold.

Additionally, three items were selected from the Community Devaluation/Discrimination subscale of the ACMHQ to measure educators' perceived public stigma related to devaluation and discrimination of children with mental health problems by other teachers. The full Community Devaluation/Discrimination subscale has nine 6-point Likert scale items and had a Cronbach's alpha of .91 when used with a sample of rural adults. To prioritize pragmatic assessment, the three most relevant items that ask participants about the perspectives of other teachers were utilized, however a limitation of not selecting all items is that the psychometric properties of the subset are unknown. All items utilized in this study from the ACMHQ's Personal Attitudes subscale and Community Devaluation/Discrimination subscale can be found in Appendix D.

Self-Efficacy. School mental health self-efficacy is operationalized as educator endorsement in their confidence to teach students with mental health needs, respond to mental health concerns, recognize mental health concerns, and promote positive mental health in the classroom (Brann et al., 2021). To measure educator mental health self-efficacy, the School Mental Health Self-Efficacy Teacher Survey (SMH-SETS) was used (Brann et al., 2021). The

measure was developed by Brann and colleagues (2021) after a review of self-efficacy theory, existing teacher self-efficacy scales, mental health literacy measures, and best practice guidance on teachers' role in social-emotional development and SMH. The SMH-SETS was created through an iterative development process where feedback was gathered by mental health experts on the face and construct validity, and then piloted with pre-service and in-service educators. The SMH-SETS is a 15-item measure that results in an overall unidimensional score. Each item follows the prompt, "I feel confident in my ability to…" and responses are rated on a 6-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Sample items include "recognize when there is a student with an internalizing concern (e.g., depression and/or anxiety symptoms)", "discuss student mental health concerns with parents/guardians", and "promote the emotional skills of students in my classroom (e.g., label emotions, model coping strategies, praise for managing emotions)."

A prior evaluation utilized Rasch analysis to appraise the SMH-SETS psychometrically (Brann et al., 2021). First, they examined the unidimensionality of items with Outfit Mean Squares (MNSQ), Infit MNSQ statistics, point measure correlations, and a principle component analysis of residuals (PCAR). The Infit and Outfit MNSQ item statistics ranged from 0.72 to 1.50, which is within the acceptable range, the point measure correlations were all acceptable (i.e., above .3 based on recommendations by Li et al., 2018), and the PCAR analysis supported that the SMH-SETS measures one trait. The SMH-SETS was also evaluated using rating scale guidelines by Linacre (1999; 2004) for Rasch analysis and the guidelines were generally met. A Wright map was also created to evaluate item difficulty, which indicated that the items covered a range of difficulty and was reviewed to indicate initial construct validity as well. Finally, the SMH-SETS also has acceptable internal consistency (Cronbach's alpha = .91).

Social Validity

Educators who completed the Go-To Educator Training were asked to complete an adapted version of the Training Satisfaction Questionnaire (TSQ; Larsen et al., 1979; Kratochwill et al., 1991). The TSQ is an 8-item scale with responses that are defined for each item, generally ranging from 1 (*dissatisfaction*) to 4 (*extreme satisfaction*). Questionnaire items assessed quality of training received as well as the extent to which the training was helpful and met educator needs (see Appendix E).

Focus Groups & Interview Protocol

To facilitate focus groups and interviews, a standard semi-structured protocol was created by the primary researcher (see Appendix F). To develop the protocol, two prior evaluations of MHL programs that used qualitative methods were reviewed to better understand questions to consider, including an evaluation of Y-MHFA with educators (Morawska et al., 2013) and a MHL program tailored to parents of adolescents participating in sports clubs (Hurley et al., 2020). Additionally, the protocol includes questions incorporating content from prior research on better understanding educator perspectives on the social validity of the intervention (Leko et al., 2014), as well as how educators use the information they received through the professional learning experience in relation to their work (Castillo, 2020).

The purpose of the qualitative data collection was to capture educators' perspectives on the Go-To Educator Training and the potential impacts of the training on their lives afterward. The facilitator of the focus groups aimed to facilitate the generation of rich data through building rapport with the participants by taking the time to engage in small talk and reviewing the purpose of the interview, being responsive to and clarifying interviewee responses, and communicating gratitude of the contributions of participants (Drabble et al., 2016). Questions in the protocol

covered educator perspectives on their experiences during the training, the training content, virtual delivery methods, and general strengths and weaknesses. Next, a section of questions focused on educators' perceptions of how the training impacted their knowledge, attitudes, and confidence in supporting youth with mental health concerns, and any potential actions they took after the training. Educators were also asked to share potential factors that got in the way of them being able to apply information from the Go-To Educator Training into their work. Finally, educators were given an opportunity to share any final thoughts about their experiences during and after the Go-To Educator Training. A semi-structured format with the standardized protocol of questions with flexibility for follow up questions was used to allow for comparison and consolidation across the focus group and interview transcripts.

Intervention Fidelity

The Go-To Educator Training requires fidelity of the core intervention content (Wei et al., 2021). The synchronous training sessions were audio recorded and the asynchronous training videos were saved in a secure Box folder. The primary researcher completed a checklist after each session to measure adherence to the required content areas for the synchronous and asynchronous sessions (see Appendix G). A secondary coder trained in the core intervention by the primary researcher also reviewed the audio recording and the video for the asynchronous sessions to code fidelity and examine intercoder agreement.

Data Collection Procedures

Measures

All survey measures were organized into online Qualtrics surveys for participants to complete and data collection was overseen by the primary researcher. Preintervention measures were completed immediately after consent on a rolling basis during the recruitment phrase, from

November 8, 2022 until February 3, 2023. Postintervention surveys were sent via direct email up to three times to each participant to promote survey completion. Participants completed the postintervention assessments between March and May of 2023. For the completion of the pre- and post-intervention assessments, participants were compensated with $5 gift cards each time.

Focus Groups

All 10 of the participants who completed at least 50% of the Go-To Educator Training sessions and gave permission to be contacted about focus groups were contacted by email to engage in the qualitative portion of the study. Six of the 10 participants gave consent to participate. Two focus groups were conducted and one interview. One focus group included two participants who had participated in the Go-To Educator Training synchronously, one focus group included three participants who had participated asynchronously, and one interview was conducted with a participant who had participated synchronously but was unable to meet at the same time as other participants to engage in the focus group. The length of the focus groups and interviews were 37.02 minutes, 22.83 minutes, and 20.39 minutes. After completion of the focus groups and interview, participants were compensated with $15 gift cards.

The focus groups and interview were conducted virtually using the Zoom platform to assure the safety and access of the participants. Qualitative researchers have suggested the use of online focus groups even prior to the COVID-19 pandemic to improve access for participants and decrease logistical barriers (Fox et al., 2007). Participants were given the opportunity to use the chat function in Zoom to type any additional thoughts that they were not able to share verbally during the focus groups and interview, however no participants used this function. The Zoom platform includes audio and video recording. For the purpose of data analysis, audio and visual recordings were created during focus groups. Recordings from the focus groups were

transcribed using the automatic audio transcription service from Zoom, followed by the primary researcher reviewing the audio and transcripts for accuracy. Audio files and transcripts were stored in a secure online location on UW–Madison Box to protect the confidentiality of the study participants. Only members of the research team had access to the Box folder.

Data Analysis

This study utilized a mixed-methods approach combining quantitative and qualitative methods and analyses, which were integrated to answer the research questions.

Quantitative Analysis

Pre and postintervention responses were compiled in a .csv file and imported to R Statistical Software (R Core Team, 2023) for analysis. The following approach was used to answer Research Question 1, which is: What are the impacts of the Go-To Educator Training on educators' MHL knowledge, stigma, and self-efficacy as measured by pre- and postintervention surveys? Participant responses on the MHL knowledge, stigma, and mental health self-efficacy survey-based measures preintervention and postintervention were analyzed descriptively using the psych package (Revelle, 2023) and tableone package (Yoshida & Bartel, 2022). Correlations between gains in the quantitative outcomes (i.e., MHL knowledge, stigma, and mental health self-efficacy) were also investigated.

Intention-to-treat and completer analyses were conducted for Research Question 1 since there were participants assigned to the intervention condition that did not complete the study but submitted postintervention data, called "noncompleters" and participants assigned to the intervention condition who dropped out and did not complete the intervention or the postintervention data, called "dropouts."

Intention-to-treat analysis is a method for analyzing results in a randomized study where all participants who were randomized are included in the statistical analysis and analyzed according to the group they were originally assigned, regardless of whether they completed treatment (McCoy, 2017). For this study, intent-to-treat analysis was also conducted with sensitivity analyses to account for missing post-assessment data from the three dropouts. First, an assuming no change, or a last observation carried forward, approach was utilized, inputting pre-assessment scores for the post-assessment scores for the three dropouts. The impacts of the training were analyzed using multiple analyses of covariance (ANCOVA) by examining main treatment effects relative to post-test scores (while controlling for preintervention scores). The training group status was a fixed factor independent variable. Analyses were run on R using the dplyr package (Wickham et al., 2023). Second, missing data were estimated through multiple imputation procedures using the mice package (van Buuren & Groothuis-Oudshoorn, 2011), miceadds package (Robitzsch & Grund, 2023), and naniar package (Tierney & Cook, 2023) for R. Classification and regression trees (CART) was used as the conditional models for imputation and pooled estimates of the impacts of the training from ANCOVAs were created from 20 imputations.

Completer analysis is when data is analyzed only for participants who complete the study and per-protocol analysis is a type of completer analysis where only the participants who complete the study and complied with the key elements of the intervention are included in the analysis (Andrade, 2022). For this study, a completer analysis was conducted that included data from the 17 participants in the waitlist-control, the 9 participants from the intervention condition who complete 100% of the Go-To Educator Training and the one participant who only

completed 50% of Go-To Educator Training. The impacts of the training were analyzed using multiple ANCOVAs.

Quantitative approaches were also used to answer Research Question 6, which is as follows: To what extent do educators perceive the Go-To Educator Training as socially valid based on survey-based measures and focus group perspectives? The educators' responses to the social validity items were summarized using descriptive statistics; specifically, means and standard deviations were examined for each item using the psych package (Revelle, 2023) and tableone package (Yoshida & Bartel, 2022).

Qualitative Analysis

Approach. Qualitative Content Analysis (QCA; Schreier, 2012) approach was selected as the methodology for qualitative analysis because it is a systematic, step-by-step process to describe main themes to answer research questions. The current study was designed from a pragmatic philosophical approach, which is typically associated with mixed methods research, and is focused on answering research questions to inform realistic problems under study, in this case, the evaluation of the Go-To Educator Training (Creswell & Plano Clark, 2018; Patton, 2015). Pragmatism is often utilized in program evaluation to understand the practical consequences and useful applications of what we can learn about an issue or a problem (Patton, 2015). Thus, the primary goal of the qualitative component of this study was to describe educators' perspectives on their experience with the training and feedback on the training. QCA is also considered a fitting method for this project because it is best suited to support the creation of answers to descriptive research questions, especially when the qualitative material gathered is similar in content and form (i.e., from focus groups and interviews using the same protocol; Schreier, 2012). Specifically, QCA was used to answer Research Question 2, Research Question

4, Research Question 5, and the qualitative portion of Research Question 6. Research Question 2 is as follows: How do educators make sense of the information received from the Go-To Educator Training and describe the potential impacts on their knowledge, stigma, self-efficacy, and behaviors during postintervention focus groups. Research Question 4 is as follows: What do educators describe as influencing the extent to which the Go-To Educator Training impacted their mental health supportive behaviors during postintervention focus groups? Research Question 5 is as follows: What are educators' perceptions of the strengths and areas to improve of the Go-To Educator Training? Research Question 6 is as follows: To what extent do educators perceive the Go-To Educator Training as socially valid based on survey-based measures and focus group perspectives?

Qualitative content analysis developed as a method for analysis out of quantitative content analysis traditions (Schreier, 2012). Quantitative content analysis was originally created as a research method to quantify and compare newspaper content and then was applied to study the effects of communication content on recipients (Schreier, 2012). Berelson (1952) defined content analysis as "a technique for the objective, systematic, and quantitative description of the manifest content of communication." The term "qualitative content analysis" was termed by Kracauer (1952) when critiquing purely quantitative content analysis because meaning is often complex, may not be latent, and may appear infrequently in a text. In the decades since, as quantitative and qualitative content analysis approaches have evolved and some scholars have argued that the differences between the two are artificial and are variations of the same approach (Groeben & Rustemeyer, 1994). However, others argue that QCA is distinct from quantitative content analysis (Elo & Kyngäs, 2008; Schreier, 2012).

QCA's primary goal is to systematically describe the meaning of qualitative materials by analyzing selected aspects of materials to reduce and summarize data to answer research questions (Schreier, 2012). The main steps in QCA according to Schreier (2012) include:

1. Deciding on research questions
2. Selecting relevant material
3. Building a coding frame
4. Dividing material into units of coding
5. Piloting coding frame
6. Evaluating and modifying coding frame
7. Analyzing the remaining units of coding
8. Interpreting and presenting findings

At the center of QCA is the creation and use of a coding frame (Schreier, 2012). A coding frame, or coding manual, is a guide to the main categories, also called the main dimensions, of the qualitative material that the researcher wants to know more about to answer their research questions. Once the main categories are delineated, then subcategories are created for each main category to specify what was said in the materials about the main categories. Subcategories can be created in a few ways, including concept-driven by using pre-existing information and data-driven by using the material gathered for the project, or a combination of both approaches. QCA coding frames should have (a) unidimensionality, so each main category only captures one dimension of the qualitative materials; (b) mutual exclusiveness, where units of coding can only be assigned to one subcategory within a main category; (c) exhaustiveness, so each unit of coding is assigned to at least one subcategory; and (d) saturation, where each subcategory is used at least once during the analysis.

Overall, researchers recommend reporting the process of QCA and the results accurately to increase the trustworthiness of the research (Elo et al., 2014; Schreier, 2012). In a QCA approach, researchers attend to reliability and validity as a part of the qualitative analysis process but there is variability in the manner to which these components are addressed (Schreier, 2012). Reliability and validity as criterion for evaluating the quality of research is rooted in quantitative methodology and researchers have debated the extent to which these concepts should relate to rigor in qualitative research (e.g., Cypress, 2017; O'Connor & Joffe, 2020). For QCA, assessing the internal reliability of the coding frame, or the consistency, can be accomplished either by comparing coding across coders or by comparisons across points in time by the same coder (Schreier, 2012). Reliability information is useful in QCA as low consistency can lead to the strengthening of the coding frame and high consistency helps to support the claim that the meaning described in the categories are present in the material.

Additionally, a coding frame can be regarded as valid based on the extent to which the categories adequately represent concepts in the project's research questions and face and content validity are proposed as the most useful types of validity to consider (Schreier, 2012). Researchers can assess face validity of the coding frame after the piloting phase in a few ways, one of which is reviewing for a high frequency of codes in residual categories, which is an indicator of low validity. This may indicate that the coding frame is not providing an accurate description of the material through the subcategories and categories and the coding frame needs revisions. Content validity can also be assessed in QCA studies and is recommended for projects using a concept-driven coding frame. To do so, experts on the topic of research would review the coding frame and provide feedback on whether the categories adequately represent the concepts.

Analysis Process. The primary researcher trained two research assistants to assist in qualitative data analysis. Training included an overview of the study purpose, the research questions, the focus group and interview protocol, QCA as a methodology, and the QCA steps. The coding team had different roles during analysis. The primary researcher and one research assistant worked together as the "primary coding duo" and then the other research assistant supported analysis as an independent coder. In addition to conducting a training at the beginning, the primary researcher met regularly with the research assistants to engage in conversations about coding and team member's positionality. Positionality was discussed with the coding team, with the goal to make explicit the past relevant experiences and potential biases each individual brings to the work and to ensure that participants' perspectives are being accurately centered in the research (Trainor & Graue, 2014).

The coding team started the QCA process at step two since the research questions were already created by the primary researcher. In the step of selecting relevant material, the goal was to classify material in the focus groups and interview transcripts as either relevant to the research questions or irrelevant, and then exclude the irrelevant materials from analysis (Schreier, 2012). To engage in this step, the coding team agreed to a definition of irrelevant content as "content that does not relate to the research questions. It includes the interviewers' questions, discussions of logistics of facilitating the focus groups, or discussions of aspects of teaching that are unrelated to the MHL training and supporting youth mental health." The primary researcher denoted content relevance for the transcripts and the research assistants reviewed. The final exclusions of irrelevant content was agreed upon as a team.

Next, the primary coding duo created the first draft of the coding frame together. According to Schreier (2012), having a research assistant create the coding frame with the

primary research embeds reflexivity into the coding process as it reduces preconceptions and allows the data to be viewed from different perspectives. The primary coding duo used the focus group and interview protocol questions as a concept-driven framework for the main categories and then used a data-driven approach to create the subcategories and edit the main categories by reviewing the material in all the transcripts. Following the guidance of Schreier (2012), residual categories, or miscellaneous categories, were also included in the coding frame, which functioned as containers for units that were relevant to the research questions but did not fit into any of the substantive subcategories and/or main categories. This was necessary to ensure the coding frame was exhaustive. For each subcategory, definitions were created in the coding frame, which included a category name, description of the name and examples, and decision rules, like non-examples (Boyatzis, 1998; Schreier, 2012). After the coding frame was developed, the primary researcher met with the other research assistant to provide an overview of the coding frame, to discuss the categories, and answer questions.

For step four, the primary coding duo engaged in segmentation, or the process of dividing qualitative material (e.g., transcript from a focus group) into smaller units of coding, which are then categorized using the coding frame (Boyatzia, 1998; Krippendorff, 2019; Schreier, 2012). The primary coding duo used a thematic criterion approach to segment, which involved looking for changes in topic to signal the end of one unit and the beginning of the other, based on the topics within the coding frame (Schreier, 2012). The second research assistant reviewed all segmentation and provided feedback to the primary coding duo so that final units of coding were agreed upon by group consensus prior to piloting the coding frame.

After the coding frame was initially developed and the units of coding were segmented, the coding frame was piloted with one of the focus group transcripts. The primary coding duo

and the second research assistant independently coded all units of coding in the transcript into subcategories to provide a consistency check and then adjust the coding frame (Schreier, 2012). The percentage of agreement for the pilot phase was 65.38%. The disagreements were reviewed to establish any patterns of difficulty with the coding frame and all disagreements were resolved by group consensus. One overarching pattern of disagreement was around the ability to code the same unit into multiple subcategories if they were in different main categories, which is allowed in QCA. To decrease confusion, the coding frame was adapted to not allow any double categorizing of units. Other patterns of disagreement were around distinguishing whether units fell into opinion categories (e.g., if of the opinion the training was relevant) or reasons for an opinion (e.g., reasons why participants thought the training was relevant) and how to code units about the size of the training group.

In addition to reviewing the consistency of coding, the coding was reviewed to consider the face validity of the coding frame (Schreier, 2012). The use of residual, or miscellaneous codes was reviewed. The primary coding duo used a miscellaneous category four times and the independent research assistant used it 20 times. Given the discrepancy between coding groups and the frequency of use by the independent research assistant, the use of miscellaneous categories was discussed as a team and the coding frame was modified to ensure the disagreed upon units were captured sufficiently in subcategories. At the end of the resolving disagreements of the pilot coding, the coding team had 4 units remaining in a miscellaneous category. Throughout this process, notes were taken and shared with the team to aid in the next round of coding.

After modifications to the coding frame were completed, the coding team used the new coding frame to code all the transcripts, which included re-coding the material used for the trial

coding based on guidance by Schreier (2012). Percentage of agreement was calculated for each of the three transcripts and were 100.00%, 96.67%, and 90.00%. Following the same process as the pilot coding, disagreements were resolved by group consensus through team meetings. Coders discussed disagreements, considered if there were patterns to the disagreements (e.g., disagreements were around a similar issue), shared their perspectives on their codes, and mutually agreed on how to resolve the disagreements to result in final codes. Of note, one pattern was found among the disagreements about whether two units were in the category "each part of the training seemed relevant" or if they were "miscellaneous reasons the training was relevant" and the coding group decided the former. Otherwise, the other disagreements were discussed and resolved one by one. The frequency of miscellaneous codes was reviewed and there were 10 miscellaneous codes in the final, agreed upon categorization. Specifically for the recoded transcript there was four, which were agreed upon by coders; for the next transcript, the coders had three and six miscellaneous units initially, but through resolving disagreements decided in two final miscellaneous units; and for the last transcript, the coders had three and four miscellaneous units initially, but decided in four final miscellaneous units. As a final step of QCA, the primary researcher organized the qualitative findings into tables with absolute frequencies for the subcategories to aid in answering the research questions.

Mixed Method Integration

The primary researcher utilized data integration for the two mixed-method research questions, Research Question 3, and Research Question 6. Research Question 3 is as follows: How do educator perspectives on the impacts of the Go-To Educator Training from focus groups compare to survey-based outcome measures? Research Question 6 is as follows: To what extent do educators perceive the Go-To Educator Training as socially valid based on survey-based

measures and focus group perspectives? Data integration is the combining of the quantitative and qualitative findings and is an important step in mixed methods designs (Creswell, 2009). In this embedded design, the findings from the focus groups were integrated within the findings from the pre- and post-test data to produce a better understanding through discussion of how qualitative findings converge, diverge, or expand knowledge from the quantitative findings (DeCuir-Gunby & Shutz, 2017). Specifically, the quantitative results from the intent-to-treat analysis utilizing assuming no change, or a last observation carried forward for the missing data were used as the primary quantitative results for the mixed method integration. Mixed methods integration was completed through a narrative approach and joint display to draw inferences, or interpretations from across the quantitative and qualitative findings (Creswell & Plano Clark, 2018). The narrative approach is where quantitative and qualitative findings will be discussed and compared by research question. The joint display is a method to organize the data within visual tables to highlight findings.

Chapter IV: Results

Intervention Fidelity

The primary researcher and a secondary coder completed an intervention fidelity checklist after each session to measure adherence to the required content for the synchronous and asynchronous sessions. For the synchronous session series and asynchronous session series, the primary researcher and secondary coder rated that 100% of the intervention content was delivered using the intervention fidelity checklist.

Descriptive Statistics

Independent samples t-tests were conducted using each preintervention measures of mental health knowledge, stigma, and self-efficacy, along with demographic variables age and years in education field, to better understand randomization. The t-test for equality of means indicated that the intervention and control groups were equivalent for the MHL-ED ($p = 0.97$), the adapted Community Devaluation/Discrimination stigma items ($p = 0.33$), the SMH-SETS ($p = 0.28$), age ($p = 0.26$), and years in education field ($p = 0.98$). However, there were statistically significant differences between the two groups on the 8-item GTE Stigma measure ($p = 0.01$) and the Personal Attitudes stigma items ($p = 0.02$). For both measures, the preintervention scores were significantly lower for the intervention group, which indicates participants in the intervention group endorsed more negative, stigmatizing beliefs than those in the waitlist-control group. Additionally, chi-square tests of independence tested if there was a significant relationship between intervention group and categorical demographic variables, finding no statistically significant relationships between group condition and gender ($p = 0.55$), race ($p = 0.31$), educational attainment ($p = 0.41$), past mental health training ($p = 0.17$), and mental health disorder diagnosis ($p = 0.45$). Table 4 includes descriptives of demographic variables and table 7

includes descriptive statistics for each outcome measure pre- and postintervention for the intervention and waitlist-control groups.

Table 7

Descriptive Pre- and Postintervention Outcomes by Intervention Group

Variable	Pre *M (SD)*	Post *M (SD)*
	N = 34	*N* = 31
Knowledge (MHL-ED)		
Intervention	11.12 (4.23)	18.71 (4.87)
Control	11.18 (4.42)	11.47 (4.87)
Stigma (GTE Stigma)		
Intervention	48.00 (5.28)	50.29 (5.58)
Control	52.12 (3.72)	52.59 (4.47)
Stigma (Community Devaluation/Discrimination)		
Intervention	12.82 (3.54)	13.00 (2.80)
Control	11.59 (3.81)	12.53 (3.79)
Stigma (Personal Attitudes)		
Intervention	47.88 (5.40)	48.21 (6.04)
Control	52.00 (4.20)	51.18 (5.97)
Self-Efficacy (SMH-SETS)		
Intervention	67.00 (11.89)	74.43 (11.71)
Control	71.65 (12.96)	72.24 (11.37)

Note. Pre = preintervention score; Post = postintervention score; *M* = mean; *SD* = standard deviation. Data from all participants who completed pre- and postintervention measures.

Table 8 presents bivariate correlations between the participants' mental health knowledge, stigma, and self-efficacy average scores and pre- and postintervention. For each outcome measure, the preintervention average score was significantly positively correlated with the postintervention score (r = .476 to r = .755). Additionally, there were statistically significant and strong positive correlation coefficients between educators' Stigma Personal Attitudes preintervention scores and the GTE Stigma preintervention scores (r = .785) and the GTE Stigma postintervention scores (r = .735). There was also a statistically significant and strong, positive

correlation coefficient between the Stigma Personal Attitudes postintervention score with the GTE Stigma postintervention score (r = .689).

Table 8

Bivariate Correlations Among Outcome Variables

Variable	*M (SD)*	1	2	3	4	5	6	7	8	9	10
1. MHL-ED_Pre	11.15 (4.26)	–									
2. MHL-ED_Post	14.74 (6.03)	0.476*	–								
3. SMH-SETS_Pre	69.32 (12.47)	0.365	0.299	–							
4. SMH-SETS_Post	73.23 (11.38)	0.276	0.475	0.645**	–						
5. GTE Stigma_Pre	50.06 (4.96)	0.105	0.099	0.435	0.398	–					
6. GTE Stigma_Post	51.55 (5.05)	-0.010	0.190	0.291	0.399	0.755***	–				
7. Stigma Community Devaluation Discrimination_Pre	12.21 (3.67)	-0.169**	0.030*	0.013*	0.076	0.094	0.248	–			
8. Stigma Community Devaluation Discrimination_Post	12.74 (3.34)	-0.301***	-0.007	0.081	0.186	0.088	0.191	0.658***	–		
9. Stigma Personal Attitudes_Pre	49.94 (5.20)	0.082	0.033*	0.337	0.265	0.785**	0.735***	0.409	0.261	–	
10. Stigma Personal Attitudes_Post	49.84 (6.09)	-0.190**	-0.007*	0.210	0.119	0.523	0.689**	0.497	0.377	0.773***	–

Note. *$p < .05$. **$p < .01$. ***$p < .001$.

Research Question 1: What are the impacts of the Go-To Educator Training on educators' MHL knowledge, stigma, and self-efficacy as measured by pre- and postintervention surveys?

To answer research question 1, three analyses approaches were utilized to attend to attrition and missing data and multiple ANCOVAs were run. This study met assumptions for ANCOVA by design. Table 9 includes the results from the ANCOVAs for the outcome variables from the three analysis approaches.

Table 9

Comparing ANCOVA Results from Three Analysis Approaches

	ITT: Assume No Change			ITT: Multiple Imputation			Completer		
Variable	*B*	*SE*	*p*	*B*	*SE*	*p*	*B*	*SE*	*p*
Knowledge (MHL-ED)									
Intercept	8.61	2.36	< .001	17.52	3.54	< .001	11.58	2.39	< .001
Condition	-5.40	1.57	< .001	-6.57	1.59	< .001	-7.58	1.63	< .001
MHL-ED Preintervention	0.74	0.19	< .001	0.64	0.18	< .001	0.67	0.18	< .001
Stigma (GTE Stigma)									
Intercept	12.39	6.14	0.052	14.28	6.47	< .001	14.54	6.29	0.029
Condition	-0.77	1.24	0.542	-1.12	1.47	< .001	-1.10	1.27	0.395
GTE Stigma Preintervention	0.79	0.13	< .001	0.78	0.14	< .001	0.75	0.13	< .001
Stigma (Community Devaluation/Discrimination)									
Intercept	5.04	1.66	0.005	5.89	2.46	< .001	4.56	2.22	0.051
Condition	0.03	0.87	0.972	0.13	0.99	0.527	0.27	1.12	0.813
Community Devaluation/ Discrimination Preintervention	0.64	0.12	< .001	0.55	0.15	< .001	0.66	0.16	< .001
Stigma (Personal Attitudes)									
Intercept	2.68	6.66	0.691	7.48	7.88	<.001	1.10	7.17	0.880
Condition	-0.98	1.41	0.494	-0.77	1.77	0.0273	-1.19	1.35	0.389

Personal Attitudes Preintervention	0.95	0.95	< .001	0.87	0.17	< .001	0.99	0.14	< .001
Self-Efficacy (SMH-SETS)									
Intercept	27.40	8.62	0.003	38.96	10.13	< .001	27.19	10.20	0.014
Condition	-2.36	3.07	0.448	-4.27	3.26	< .001	-4.15	3.28	0.218
SMH-SETS Preintervention	0.66	0.12	< .001	0.58	0.13	< .001	0.69	0.14	< .001

Note. ITT: Assume No Change = Intent-to-treat analysis with preintervention scores as postintervention for missing data. ITT: Multiple Imputation = Intent-to-treat analysis with multiple imputation for missing data. Completer = completer analysis with noncompleters and dropouts removed. *B* = regression beta; *SE* = standard error; *p* = p-value.

Intention-to-Treat Analysis

For the intent-to-treat analysis, two imputation methods were used to handle missing postintervention data from the three dropout participants who were assigned to complete the Go-To Educator Training.

Assuming No Change. The first approach to missing data assumed that the postintervention scores for the dropouts would remain the same as their preintervention scores given that they did not participate in the Go-To Educator Training. Table 10 includes the descriptive statistics for the outcome measures for the assuming no change approach to the intention-to-treat analysis. A series of ANCOVAs were conducted to determine the effect of the Go-To Educator Training on the outcome measures. After controlling for preintervention MHL-ED scores, participants who were assigned to the Go-To Educator Training demonstrated higher postintervention MHL-ED scores than their waitlist control counterparts ($B = -5.40, p < .001$). For the GTE Stigma postintervention scores, there was not a significant difference between participants who were assigned to complete the Go-To Educator Training and participants in the

waitlist control (*B = -0.77, p > .05)* after controlling for preintervention GTE Stigma scores. Similarly, after controlling for preintervention Stigma Personal Attitudes scores, there was not a significant difference between participants assigned to complete the Go-To Educator Training and the waitlist control (*B = -0.98, p > .05)* for the Stigma Personal Attitudes postintervention scores. After controlling for preintervention Stigma Community Devaluation Discrimination scores, there was not a significant difference between participants who were assigned to complete the Go-To Educator Training and participants in the waitlist control (*B = 0.03, p > .05).* For the SMH-SETS postintervention scores, after controlling for preintervention SMH-SETS scores, there was not a significant difference between participants assigned to complete the Go-To Educator Training and participants in the waitlist control (*B = -2.36, p > .05).*

Table 10

Descriptive Outcomes for Intent-to-Treat Assuming No Change in Scores

Variable	Pre *M (SD)*	Post *M (SD)*
Knowledge (MHL-ED)		
Intervention	11.12 (4.23)	16.82 (6.10)
Control	11.18 (4.42)	11.47 (4.87)
Stigma (GTE Stigma)		
Intervention	48.00 (5.28)	51.20 (4.87)
Control	50.12 (5.16)	52.59 (4.47)
Stigma (Community Devaluation/Discrimination)		
Intervention	12.82 (3.54)	13.20 (3.12)
Control	13.29 (3.00)	12.53 (3.79)
Stigma (Personal Attitudes)		
Intervention	47.88 (5.40)	49.70 (4.42)
Control	48.24 (5.85)	51.18 (5.97)
Self-Efficacy (SMH-SETS)		
Intervention	67.00 (11.89)	76.90 (11.87)
Control	71.53 (12.42)	72.24 (11.37)

Note. Pre = preintervention score; Post = postintervention score; *M* = mean; *SD* = standard deviation. Data from all participants. Assuming no change imputation approach utilized for missing data.

Multiple Imputation. The second approach to missing data used multiple imputation. Prior to completing the multiple imputation procedures, multiple MCAR tests were run and the majority were significant. This study used a multiple imputation procedure to generate 20 imputations of a full data set. Then, a series of ANCOVAs were conducted to determine the effect of the Go-To Educator Training on the outcome measures and the results were pooled. After controlling for preintervention MHL-ED scores, participants who completed the Go-To Educator Training demonstrated higher postintervention MHL-ED scores than their waitlist control counterparts ($B = -6.57, p < .001$). Additionally, after controlling for preintervention GTE Stigma scores, participants who completed the Go-To Educator Training improved their GTE Stigma scores more than their waitlist control counterparts, indicating reduced stigma ($B = -1.12, p < .001$). For Stigma Personal Attitudes, after controlling for preintervention Stigma Personal Attitudes scores, participants who completed the Go-To Educator Training demonstrated higher postintervention scores than participants in the waitlist control ($B = -0.77, p = 0.027$). Participants who completed the Go-To Educator Training also demonstrated higher postintervention SMH-SETS scores than their waitlist control counterparts after controlling for preintervention SMH-SETS scores ($B = -4.27, p < .001$), indicative of endorsement of more self-efficacy. Finally, after controlling for preintervention Stigma Community Devaluation

Discrimination scores, there was not a significant difference between participants who completed the Go-To Educator Training and participants in the waitlist control (*B = 0.13, p > .05).*

Completer Analysis

For the completer analysis, data was excluded from seven participants who were assigned to complete the Go-To Educator Training but did not complete any of the training sessions. Table 11 includes descriptive statistics of the outcome measures for the completer analysis. ANCOVAs were conducted to determine the effect of the Go-To Educator Training on: knowledge, as measured by the MHL-ED; stigma, as measured by the GTE Stigma items, Stigma Personal Attitudes items, and Stigma Community Devaluation Discrimination items; and teacher's mental health self-efficacy, as measured by the SMH-SETS. After controlling for preintervention MHL-ED scores, participants who completed the Go-To Educator Training demonstrated higher postintervention MHL-ED scores than their waitlist control counterparts (*B = -7.58, p < .001).* There was not a significant difference between participants who completed the Go-To Educator Training and participants in the waitlist control after controlling for preintervention GTE Stigma scores on stigma measured by the GTE Stigma items (*B = -1.10, p > .05).* After controlling for preintervention Stigma Personal Attitudes scores, there was not a significant difference between participants who completed the Go-To Educator Training and participants in the waitlist control on Stigma Personal Attitudes scores (*B = -1.19, p > .05).* After controlling for preintervention Stigma Community Devaluation Discrimination scores, there was not a significant difference between participants who completed the Go-To Educator Training and participants in the waitlist control (*B = 0.27, p > .05).* Additionally, after controlling for preintervention SMH-SETS scores, there was not a significant difference between participants

who completed the Go-To Educator Training and participants in the waitlist control on SMH-SETS scores (*B = -4.15, p > .05).*

Table 11

Descriptive Outcomes for Completer Analysis

Variable	Pre *M (SD)*	Post *M (SD)*
	N = 27	*N* = 27
Knowledge (MHL-ED)		
Intervention (*n* = 10)	11.40 (4.99)	19.20 (5.37)
Control (*n* = 17)	11.18 (4.42)	11.47 (4.87)
Stigma (GTE Stigma)		
Intervention (*n* = 10)	48.80 (6.12)	51.20 (4.87)
Control (*n* = 17)	52.12 (3.72)	52.59 (4.47)
Stigma (Community Devaluation/Discrimination)		
Intervention (*n* = 10)	13.00 (2.91)	13.20 (3.12)
Control (*n* = 17)	11.59 (3.81)	12.53 (3.79)
Stigma (Personal Attitudes)		
Intervention (*n* = 10)	49.30 (5.01)	49.70 (4.42)
Control (*n* = 17)	52.00 (4.20)	51.18 (5.97)
Self-Efficacy (SMH-SETS)		
Intervention (*n* = 10)	72.40 (10.30)	76.90 (11.87)
Control (*n* = 17)	71.65 (12.96)	72.24 (11.37)

Note. Pre = preintervention score; Post = postintervention score; *M* = mean; *SD* = standard deviation. Data from participants who completed assigned treatment.

Research Question 2: How do educators make sense of the information received from the Go-To Educator Training and describe the potential impacts on their knowledge, stigma, self-efficacy, and behaviors during postintervention focus groups?

Findings from the focus group and interview questions on the impacts of the Go-To Educator Training are organized below by outcome measure domain. For each, units were organized into main categories and corresponding subcategories of (a) the participants' opinions on whether the training impacted them in each domain and then (b) the reasons or examples of

impacts in each domain. The coding team included single unit subcategories because of a relatively low amount of responses and an interest in comprehensively capturing all feedback.

Knowledge

Within participants' responses to the question about the impacts of the Go-To Educator *Training* on their knowledge of youth mental health, the coding team identified two units that stated opinions without giving reasons or examples of impacts. The main category of participants' opinions of whether the training impacted their knowledge of youth mental health (N = 2 units) had two subcategories. Endorsed improvements in knowledge (n = 1) included the unit "I think so" and uncertainty if knowledge changed (n = 1) included the unit "I don't know if it [knowledge] changed all that much."

For the main category of considerations and reasons that the training impacted participants' knowledge of youth mental health (N = 26), the coding team created seven subcategories. Sharpening knowledge of mental health (n = 7) included units describing that participants' knowledge of youth mental health was sharpened or expanded by the training. One participant stated, "so it [training] was something that I think sharpened my knowledge like, Oh, I forgot about some of those things." Another subcategory was that the training refreshed knowledge because understanding of mental health changes over time (n = 6). One unit in this category is as follows:

> because for me I mean, it's been, you know. I haven't been in college for like 10 years, and and like the last time I did talk in depth about these specific, different disorders, was even further than that like even 12 years ago. So it's nice, that refresher of it being broken down, because you know, sometimes you forget all the specifics. And also, like all the

> changes that end up happening with the you know, different diagnoses and treatment and and all of that.

The remaining subcategories consisted of types of knowledge that the participants' gained from the Go-To Educator Training. Knowledge of behaviors to notice in students (n = 3) included units describing that the training increased participants' knowledge of youth behaviors and symptoms of a mental health problem or disorder. One participant described:

> And so it's one of those things that after this training I've kind of stepped back, and when a student does act a certain way, I kind of think to myself like, Why is this happening? Because clearly there's something that's causing the students to act differently, or when a mood changes, or when they snap like really, their behaviors tell us things. And I think some people don't look at it that way, and they're like well, this is just acts out because he wants to.

Another subcategory that the coding team identified from participants' responses was that the training improved participants' understanding of specific diagnoses and how to support students with those diagnoses (n = 3). For example:

> I also think, like we have a lot of students who are diagnosed with like ODD, and all of those, and we're given the acronym. But we're not really told what that means for us. You know what I mean, and like what that means for our students, and how we see that in our students, and so that one training where we went through those different ones [diagnoses] and saw like watch the videos about different things. And I think like it helps to more see it somewhere else than it just be given to us on a paper saying, your student has this diagnosed to them, and maybe that's also a flaw in our system in the schools we're not

> told. They don't want to tell us too much, but we also need to be told enough to be able to help our students.

Another type of knowledge that participants discussed was knowledge of supports around school shootings (*n* = 3). One participant described, “so I think just kind of knowing what's best practice should an event like that [school shooting] happen and the aftermath kind of just makes me feel a little bit better.” Additionally, the subcategory of knowledge of talking and checking in with students (*n* = 3) included units like, “And like if I see something like just making sure to check in a little extra or see if they need anything and things like that.” Finally, participants’ shared ways in which the training improved their knowledge of their role in supporting students’ mental health in the subcategory knowledge of the teachers’ role (*n* = 2). One participant described:

> So I think just you know, knowing that referring a student is the right call, and you know, in a lot of the cases. And not thinking I'm jumping the gun in here, because sometimes I feel like especially in a rural School, where I just feel like, am I jumping the gun for pointing this out to the school psychologist at this stage, or should I be doing more.

Coders also identified units in which participants described any reasons or considerations for why the training did not impact their knowledge of youth mental health (*N* = 6). One reason participants shared was that they had prior education, experiences, and knowledge of mental health (*n* = 4), with comments like, “a lot of it was stuff that I've already kind of known from like other trainings, and what I've done.” Participants also highlighted that they already had some existing knowledge of mental health due to their pre-existing passion about youth mental health (*n* = 2). One participant stated, “but I've always been passionate about it [mental health]. So it wasn't something that like I didn't know.”

Stigma

Within participants' responses, the coding team identified the main category of participants' opinions of whether the training impacted their stigma of youth mental health (*N* = 3 units). Some participants endorsed positive impacts on their attitudes towards youth with mental health disorders (*n* = 2), with an example unit of "Yeah, I would say, I mean, I, it really helped continued to make me feel passionate about mental health." There was one unit, "I guess I feel like my thoughts and feelings haven't really changed" that endorsed no change in attitudes towards youth with mental health disorders (*n* = 1).

Participants provided considerations and reasons that the training impacted their attitudes or stigma towards youth with mental health disorders (*N* = 11). The coding team organized units into three subcategories. The first reason was that the training increased awareness of students and their stressors (*n* = 7). This subcategory also included units about how studying and thinking about mental health brings it to the forefront of awareness. One participant stated, "I just think that it doesn't get lost in the shuffle as much when it was brought to the forefront, and we were actually like studying it and thinking about it" and another described, "you know it just it made me kind of open my eyes a little bit towards some of the students and their needs that they have right now." Another subcategory was that the training increased participants' empathy towards students (*n* = 3), with units like, "I have more empathy towards it [mental health]" and "I think, for me just like deepened my like focus of student as people first." Finally, there was a unit the coding team categorized as a miscellaneous reason (*n* = 1) that highlighted how stigma of mental health has changed over time, stating:

> because, like, I guess when I grew up it was more of like stop crying, and just do what you're supposed to like. Life moves on. Keep going. It moves fast. You know what I

mean. Like it really wasn't something, mental health was not at all something we talked about when I was in school.

Finally, there were not any specific reasons given by participants during the focus groups and interviews for why their attitudes or stigma towards youth mental health would not have changed from the Go-To Educator Training.

Self-Efficacy

Within participants' responses, the coding team identified the main category of participants' opinions of whether the training impacted their self-efficacy, or confidence, in supporting youth mental health ($N = 10$ units). Some participants endorsed improvements in self-efficacy ($n = 6$), with units of "so definitely more confident" and "I would definitely agree. I just feel more confident that I'm making the right calls." The coding team also identified units that described continued discomfort with supporting youth mental health ($n = 4$), such as "I'll be honest, I mean. I still feel uncomfortable" and "and so I don't feel completely comfortable."

Coders identified participants' reasons why the training impacted their confidence or self-efficacy ($N = 4$) and reasons why it did not ($N = 1$). There were two subcategories for reasons or considerations that self-efficacy was impacted by the Go-To Educator Training. Participants described improved comfort in referral processes ($n = 2$). One unit was "so I just, I think also it just made me feel comfortable about that [referral] whole process." The other subcategory was that increasing knowledge of mental health impacted confidence ($n = 2$). For example, one participant stated, "I mean it helps to just like, have all the more knowledge and tools" to feel more confident. Finally, for the main category of reasons why the training did not improve participants' self-efficacy, the coders identified the subcategory of mental health is not their forte

(*n* = 1) because of the unit, “like I don't feel like that is my forte, you know. I'm a math teacher, that's my forte, or at least I think it is.”

Behavior

The coding team identified a few units sharing opinions on whether the training impacted participants’ behaviors to support students’ mental health (*N* = 2). In the subcategory of endorse behavior change (*n* = 1), there was one unit of “I would say so” in response to the question of whether the participants’ behaviors and actions have changed. For the subcategory of lack of behavior change (*n* =1) there was one unit describing that “I can’t think of anything specific right at this moment.”

Participants provided examples of behavior changes that they had engaged in since the Go-To Educator Training (*N* = 18). The coding team identified the subcategory of communicating more effectively with parents and colleagues about youth mental health (*n* = 4). One participant shared the following:

> I would say that I'm now even more vocal about it towards my colleagues, in expressing that these things are happening, and some of my colleagues are older, and so they don't look into it as much, I don't think.

Another unit in this subcategory described communicating with parents:

> and I also think like talking with parents because they also kind of don't see it. You know what I mean. They're like well, he acts out at home, too, and so seeing the things that happen and trying to help parents see what's going on without telling them, I think your child--I mean you can't tell the parent what to do, but I think that it's helped me a ton when talking to parents about what's going on, and maybe how they could help or what I see it's easier for me to explain what I see after having the training than it was before.

The next subcategory was that the training improved participants' ability to educate students on mental health related topics (n = 4), which included units like:

> but also for my students that may not have any, not any, because, in fact, I think that we all kind of have some sort of mental health, you know, issues at some time. We've already talked about that. But the students that aren't maybe as compassionate towards some of those people. I think maybe I, you know, am able to enlighten them a little differently than I was before, because you know you take it on yourself as a teacher that you have to like. you know, be the one to kind of, I don't want to say, solve the problem, because that's not what it is, but that you're the one that's responsible for the actions in the classroom when you know it just allows you to teach acceptance a little bit better.

Relatedly, the next subcategory was that participants were having more effective conversations with students about their mental health (n = 3) and respond with more patience to students. One participant said, "I feel like I'm better at responding to them when they talk to me, because before I would still let them come in but I didn't really know what to say or how to help." Another unit is as follows:

> Beforehand I probably would have turned it right over to our counselor or whatever. But now the students that I have strong relationships with I feel like I can have a better conversation, and then we can decide together like what the best step is forward after they've talked to me and told me what their situation is.

The next subcategory of examples of the way the training impacted participants' behaviors was advocating for students and mental health (n = 2). Participants described increasing their willingness to advocate for students, with comments like, "you know, I just think that that has just like I mean afterwards I'm now just like oh, my gosh, yes, like advocating for

students." Another behavioral impact involved creating spaces to listen to students about mental health (n = 2). One participant provided an in-depth example of a way that she had recently created space in her classroom to have conversations about mental health:

> There are times like in class where I, I am so, my cooperating teacher would always be like you have this to do before state testing and all these things. And yes, I do have to get through everything as a math teacher. Some days it just it just isn't like that. You're just not going to. You can push it on them, but if they're not ready for it. And so there was one day that they had a long day of testing, and there was other things that happened in the building outside of the classroom, and whatever, and they just weren't in a place to learn. And so we just took the class period to talk about all the things about what's been going on like in the past weeks that led up to all the stuff that happened. And so I think them knowing that I was just like yup, we're not learning today, because that's not our first priority, and they were kind of shocked because they know what's expected when they walk in my room is that we're here to learn, and we're here to learn for the full 45 min, and you won't waste my time, and I won't waste yours. But also I'm here because I love you guys, and I also want the best for you. So I think it kind of shocked them a little bit, because I'm also not a huge, touchy, feely person, and they know that I'm like no hugs. I'll give you a fist bump and all the things, and you know that I love you. But I don't like all that stuff. And so for them to see that I was kind of like, yup, we have a lot to talk about, and you have a lot weighing on you, and so let's talk about it. I think it really made them feel comfortable in my room. I hadn't done that before.

The remaining two subcategories were learning more about mental health (n = 2) and actions in the classroom (n = 1). Participants highlighted that in the time between the end of the

training and the focus groups, they started to engage in more learning about mental health. One participant said, “I feel like I’m because I have a much better knowledge of it, and I've now done more readings on it after the training and whatnot that I have a better toolbox to help my students with situations.” Finally, one participant described generally that they have taken actions in their classroom by stating, “and just helped me take some extra things into my classroom.”

Research Question 3: How do educator perspectives on the impacts of the Go-To Educator Training from focus groups compare to survey-based outcome measures?

The quantitative and qualitative findings from research questions 2 and 3 were merged via a joint display in Table 12 to see how the findings converge, or agree; diverge, or disagree; and expand, or offer something new, for the outcomes of mental health knowledge, stigma, and self-efficacy. For the mixed methods integration, the findings from the intent-to-treat analysis using assuming no change procedures for missing data were used as the primary quantitative results.

For the outcome of knowledge, overall, the qualitative findings expanded on the quantitative information by providing more insight into participants’ perspectives on ways their knowledge and understanding changed. There were statistically significant differences in postintervention MHL-ED scores after controlling for preintervention scores between participants assigned to the intervention condition and control, with greater scores after the intervention. The MHL-ED measured the extent to which participants were able to distinguish facts about the epidemiology and aetiology of mental health illnesses, common mental health disorders in youth, treatments for mental illness, and help-seeking resources. During focus groups and interviews, participants described that the training sharpened and refreshed their

knowledge of youth mental health and that they gained knowledge of behaviors or symptoms of common youth mental health disorders, which converged with the MHL-ED findings.

The qualitative findings also provided new insight and expanded quantitative findings as participants shared other kinds of knowledge that they felt they gained from the training that was not covered in the MHL-ED. Subcategories included knowledge of how educators can provide supports to students with specific diagnoses, how to talk and check in with students, how to support if there is a school crisis like a school shooting, and what a teachers' role is in supporting youth mental health. Additionally, some participants stated that due to their pre-existing passion and prior education and experiences with mental health, some of the training content was information they already knew so their knowledge may not have necessarily changed. This category of reasons there were not changes in knowledge diverged from the MHL-ED findings. When considered together with participants' descriptions of how the training helped to sharpen prior knowledge, there is a more expansive understanding ways in which the Go-To Educator Training provided new understandings and refreshed prior knowledge.

The quantitative and qualitative findings related to stigma and attitudes primarily diverged. There were not statistically significant differences in postintervention scores for the GTE Stigma or Stigma Personal Attitudes scores after controlling for the corresponding preintervention scores between participants assigned to the intervention and control groups. Qualitatively, participants shared opinions on the extent to which the training impacted participants' attitudes, or stigma, with subcategories of endorsing improvements in attitudes (n =2) and endorsing no change (n =1) in attitudes; this is a mix of divergence and convergence with the quantitative findings of a lack of statistically significant change in stigma. Participants shared examples and reasons that the training impacted their personal attitudes by increasing

their awareness of students and their stressors, as well as increasing empathy towards students. For example, one participant described that "I have more empathy towards it [mental health]." These examples diverge from the quantitative findings that did not find improvements in personal stigma. There was not a statistically significant difference in postintervention scores for Stigma Community Devaluation Discrimination items between intervention and control when controlling for preintervention scores. During the focus groups and interviews, participants did not bring up any changes in their understanding of the extent to which other educators' possess stigmatizing beliefs of youth mental health.

For the outcome of self-efficacy, there was not a statistically significant difference in postintervention SMH-SETS scores between participants assigned to the intervention and control when controlling for preintervention scores. The qualitative findings primarily diverged with the quantitative results as qualitative themes highlight specific ways in which they felt like their self-efficacy, or confidence, improved. A specific area participants recognized improvement was increased comfort in mental health referral processes. Other participants shared that the training provided more knowledge and tools, which was a reason that their confidence changed. However, there was also a minority of units from the focus groups and interviews that some educators felt continued discomfort. These mixed opinions diverge and converge with the quantitative data, providing a more nuanced understanding of the potential impacts of the Go-To Educator Training on educators' self-efficacy.

Table 12

Joint Display of Training Outcomes

Findings	Quantitative results	Qualitative experiences	Converge, diverge, expand
Impact on knowledge	Improved knowledge as measured by MHL-ED Statistically significant difference in postintervention MHL-ED scores between intervention and control when controlling for preintervention scores	Conflicting opinions on knowledge improving from training: subcategories of endorsing improvements (*n* =1) and uncertainty if knowledge changed (*n* =1) Reasons training impacted knowledge (*N* = 28) included types of knowledge not captured in the MHL-ED (e.g., teachers' role, supports around school shootings). Also recognition that this training sharpened and refreshed prior knowledge. Reasons training did not impact knowledge (*N* = 6) consisted of the subcategories participants' experiences of pre-existing passion about youth mental health and prior education, experiences, and knowledge.	Expand with some divergence
Impact on stigma			Diverge with some convergence
GTE Stigma	No statistically significant difference in postintervention GTE Stigma scores between intervention and control when controlling for preintervention scores.	Conflicting opinions on impacts from training: subcategories of endorsing improvements in attitudes (*n* =2) and endorsing no change (*n* =1) Reasons training impacted stigma (*N* = 11) included examples of increased empathy and awareness of students and their stressors. No units for why did not impact stigma.	
Stigma Personal Attitudes	No statistically significant difference in postintervention scores between intervention and control for Stigma		

	Personal Attitudes items when controlling for preintervention scores		
Stigma Community Devaluation Discrimination	No statistically significant difference in postintervention scores for Stigma Community Devaluation Discrimination items between intervention and control when controlling for preintervention scores	No units describing changes in beliefs about other educators' stigma	
Impact on self-efficacy	No statistically significant difference in postintervention SMH-SETS scores between intervention and control when controlling for preintervention scores	Conflicting opinions on impacts from training: subcategories of endorsing improvements (n =6) and endorsing continued discomfort (n =4) Reasons training impacted self-efficacy and confidence (N = 4) include increased comfort in referral process and increasing knowledge of mental health and tools impacted confidence. Reasons training did not impact self-efficacy and confidence (N = 1) include mental health not being participants' forte.	Diverge with some convergence

Research Question 4: What do educators describe as influencing the extent to which the Go-To Educator Training impacted their mental health supportive behaviors during postintervention focus groups?

The coding team identified a main category of reasons and examples that the training did not impact participants' behaviors to support students' mental health ($N = 1$). There was one subcategory of have not had to use behaviors yet ($n = 1$) with the unit of "I mean. I haven't had to use them yet." Participants were also asked whether they had noticed anything getting in the way of being able to apply information from the Go-To Educator Training in their lives and work. The main category of barriers for this training and applying content ($N = 10$) had four subcategories. The first was balancing with other responsibilities as teachers ($n = 6$) which included units describing how educators already have a lot of responsibilities and limited time. One participant described:

> but I guess just how there's always one more thing for teachers to do and be and one more thing to put our mind on. So I guess that would be a barrier, just teachers burn out, not feeling like they have time, feeling like you're doing a 1 million things. This is just one more thing to do.

Another subcategory identified in participants' responses was the extent of parent involvement needed in SMH ($n = 2$), which included units discussing some of the challenges participants have experienced or would expect to experience when trying to talk to parents and caregivers about youth mental health. For example:

> And even learning how like, how do you approach parents with that? Because I do have a student. You know right now that her parents don't believe in what you and I do and it's like how do we help you, you know? So that is that's always the thing that kills me a little

> bit, it's not even a problem why are you saying it is a problem? Well I'm not saying your kid is a problem or anything but they are in a situation that might grow into a bigger thing for them to try to work through. If there is a way we can get ahead of it to make them more successful and just feel better in general, like, yeah.

The subcategory lack of confidence to apply training information (*n* = 1) included, "and then going back to the confidence that you have, you know, just determining what what needs to be done like we talked or spoken about before." The final subcategory was miscellaneous, external factors (*n* = 1) and was composed of the unit "I think the only thing I can think of that could possibly get in the way would be like external factors."

The coding team created a main category for facilitators for the use of the Go-To Educator Training and applying content from the training as educators (*N* = 6). There was a subcategory of lack of identifiable barriers (*n* = 3) that included units expressing an inability to think of another barrier or factor that would impact their ability to use the training content. One participant stated, "I don't think so. Not that I know about the top of my head. Yeah" when asked about barriers. Another participant shared, "I can't think of anything." Another subcategory was push for mental health and SEL in schools (*n* = 2) as a facilitator to this type of training with units including "so I think that our school has this huge push towards these different facets of people now, and, like their mental health and their social and, and their emotional heath. So I definitely can't." The final subcategory was that schools and staff are open to mental health training (*n* = 2), which included statements like, "my school and principal and coworkers would never feel like oh, don't bring this training in. Don't use it. So I think they would be more than happy to know what I learned."

Research Question 5: What are educators' perceptions of the strengths and areas to improve of the Go-To Educator Training?

Strengths

Participants explained several memorable features, or strengths of the Go-To Educator Training ($N = 65$ units) that the coding team organized into 13 subcategories. The six subcategories of strengths identified most frequently are described in detail. The subcategory of discussions and interactions with other educators ($n = 14$) included units describing how the interactions with other educators, including breakout discussions, were a strength of the training. Units included, "and then, yeah, just the opportunities to be able to talk to different people was really nice" and "and that it was um educators from different, different backgrounds and different like classes taught and specialties. So I really appreciated and thought that that was really memorable." Another identified strength of the training was the coverage of language related to mental health ($n = 6$). One participant said, "I liked our discussion about language, and not just talking about how language mattered, but then also talking about like what language to use versus what not to use." The next subcategory was diversity of mental health disorders covered ($n = 6$), which included units describing that the range or diversity of mental health disorders was a memorable, or unique component of the training. For example, one participant shared, "the fact that there is diversity of mental health disorders like addiction and anorexia, and not just, you know, standard ones like anxiety disorder, you know, and ADHD" and another stated, "and like the differences between different diagnoses or different illnesses or different things like that. So I think that was my biggest thing for that." There was also a subcategory of strengths composed of units that gave general positive feedback about the training ($n = 6$). For example, "and so I mean, it was really good" and "like the information I thought was helpful."

Another subcategory of strengths was the inclusion of mental health supportive strategies that reinforced how to support students in the classroom (n = 6), which included descriptions of how the content of the training reinforced what educators can do to support students. For example, one participant described:

> I would say, you know, when we were talking about, I'm trying to think…I mean I just it reinforced like you are doing the right thing. A lot of the things that you are talking about when it comes to like ADHD, or anxiety, or depression, those because I see those in my classroom probably the most, you know, anxiety is lately been like the most. And so I think, just having that reassurance that yes, you are doing the right thing was really good.

The sixth most frequent subcategory of strengths was trainer's responsive facilitation (n = 6), which included units describing the trainer's facilitation skills. Units included comments like, "I kind of liked it in that I feel like you did a nice job making it less like textbook-ish and more personable" and "yeah, I would agree with that. Like the way that you were able to like, flow through and present it was very like easy to understand." Descriptions of all the subcategories of strengths and memorable features, their frequency counts, and example units are provided in Table 13.

Table 13

Subcategories of Memorable Features and Strengths of the Training

Subcategory	Unit Count	Example Unit
Discussions and interactions with other educators	14	"Hearing some of their experiences as well, and some of them, you know, like they had some background in different, like committees"
Coverage of language related to mental health	6	"I would say the most memorable is learning about like the different vocabulary around mental health"

Diversity of mental health disorders covered	6	“and I agree the diversity when talking about mental health disorders, because I mean when I think back to like my different trainings, it was about like things like ADHD, or like those ones and less about like eating disorders. So it was nice to see that spread there”
General positive feedback about the training	6	“Like the information I thought was helpful.”
Inclusion of mental health supportive strategies reinforcing how to support students in the classroom	6	“So I was able to like, relate it to my actual students and be like, okay, yeah, I can do this or that makes sense to me in my own classroom.”
Trainer's responsive facilitation	6	“So I think you [trainer] did a really good job of like. Oh, well, I’ll look more into this. We'll swing back around to that. We'll keep going with it and then touching base with those people individually was great.”
Sequencing and in-depth break down of mental health disorders	5	“I did appreciate that there was like a breakdown of like kind of like. What is it? Like what are elements of its diagnosis? treatments for it. And then you know things you can do to help in the classroom, and then, you know, even some resources afterwards depending on which one it was. So I did like that format when talking about them.”
Follow-along presentation slides	4	“So I really liked the slides that went along with your presentation. I thought that it gave enough information, but not too much at once and it was super easy to follow through, and then I really enjoyed how you then expanded upon it.”
Content of what not to do	2	“I really appreciated you had some slides in there that talked about like what you should absolutely not. Like if a student dies, this is not like what you should do. So I really appreciated that, too.”
Embedded relatable videos	2	“I also liked when you would like, put in the YouTube videos so then you could kind of see like different perspectives and whatnot.”
Length of the training	2	“Other than that, I mean, because, like time wise like it didn't, you know, like the timeframe I mean, we had to

		cover certain things so like the time frame felt appropriate."
Training timing mid-school year	2	"I think it was nice in the middle of the year, too, where sometimes you got down like I was kind of just like I'm a little tired of school right now, just to remind myself, like It's not just about the content it's also about the kids."
Miscellaneous strengths/memorable features	4	"Especially the plan stuff that maybe our school psychologist, or you know our counselor may use, and you know, they sometimes don't always share that specific part of it. So it was just kind of nice to know that there is like plans that can be put in place, and that are tangible to like, because sometimes it's like, oh, well, just keep doing what you're doing, and it's like but I don't know if that's really what's working and what's best."

Note. Units identified from focus groups and interviews with 10 participants who engaged in the Go-To Educator Training.

Areas to Improve

Participants in the focus groups and interview were asked about areas to improve of the Go-To Educator Training. The coders created two main categories of difficulty identifying aspects of the training to improve ($N = 3$) and areas of the training to improve ($N = 23$ units). One subcategory was created of expressions of difficulty thinking of ways to improve training ($n = 3$). It included units like, "I don't have anything off the top of my head right now" in response to the question of areas of the Go-To Educator Training to improve.

For the main category of areas of the training to improve, the coding team identified seven subcategories. The first was more organized and accessible training resource*s* ($n = 6$) which included units describing a want for more easy-to-use guides or time to explore the provided resources. An example unit is:

> because, like I know, a lot of them [resources] were kind of like built into the the presentation, but maybe kind of like at the end, like just the resources we had talked about, so that we could kind of, you know, find them a little bit easier to kind of go and investigate them ourselves

Participants also shared that they were seeking more in-depth coverage of certain mental health disorders (n = 6), with units referencing a want to have more time devoted to eating disorders, youth substance use, and parent/caregiver addiction. For example, one participant shared:

> our school, has a huge population of children that have parents of like addiction. And so like, how can I help them like that would have been something I would have really love to get into. But that's very specific

Two subcategories of areas to improve centered around the length of the training and the division of the training content into multiple sessions or videos. The subcategory divide training into more sessions (n = 3) included units like:

> It did sometimes feel like the videos were really long and I know that I feel like if you were to, you know, cut them down into more sessions. Then it would be more sessions, because it was 4 Sessions was a nice, manageable number, but I just felt like it was a lot of information to take in at one time

The subcategory increase the length of the training (n = 1) included the unit, “you know if I have to choose something, I don't know like, did it have to be four or could it be like more sessions in the training to be longer.” The sixth subcategory of areas to improve was include more classroom scenario applications (n = 3), which included references like, “and like more scenarios where this was happening in our classrooms, or that we're happening in other classrooms to take a look at.”

Finally, the last suggestion for improvement was to offer the training at another time during the school year (n = 1), which included:

> maybe at a different time of year might be a little bit better only because we're towards the end of the year. So any improvement that you might make in your teaching, or any connections that you might make with those kids is going to be over in a month, you know

Noncompleters' Reasons for Lack of Participation

The study's four noncompleters, or the participants who were assigned to engage in the Go-To Educator Training but did not complete the training and did complete the postintervention measures, were asked why they did not participate. Participants were instructed to select reasons that applied to them from a list of six and were given a free-response option. All four of the noncompleters selected that it was too big of a time commitment to engage in the training, three indicated that they had scheduling conflicts, one endorsed that there was insufficient compensation, and one wrote that they had an unexpected medical condition impacting their ability to engage in online training. None of the noncompleters indicated that they were no longer interested in the topic, had personal or family emergencies, or received a different youth mental health-focused training instead.

Research Question 6: To what extent do educators perceive the Go-To Educator Training as socially valid based on survey-based measures and focus group perspectives?

Quantitative Findings

The 10 participants who completed the Go-To Educator Training also completed the TSQ to report their satisfaction with the training. Out of a total possible of 32 points, participants' total scores ranged from 24 to 32, with a mean score of 28.30 (SD = 3.09). Mean item ratings are

included in Table 14 and ranged from 3.40 to 3.70. This indicates that on average, participants' endorsed between 3 (*satisfaction*) and 4 (*extreme satisfaction*) for the Go-To Educator Training.

Table 14

TSQ Total and Item Descriptives

TSQ Item	*M (SD)*
1. How would you rate the quality of the training you received?	3.40 (0.52)
2. Did you get the kind of training you wanted?	3.40 (0.52)
3. To what extent has our training met your needs?	3.50 (0.53)
4. If a friend were in need of similar training, would you recommend our program to them?	3.70 (0.48)
5. How satisfied are you with the amount of training you received?	3.40 (0.52)
6. Has the training you received helped you understand youth mental health?	3.60 (0.52)
7. In an overall, general sense, how satisfied are you with the training you received?	3.60 (0.52)
8. If you were to seek training again, would you come back to our program?	3.70 (0.48)
TSQ Total Score	28.30 (3.09)

Note. M = mean; *SD* = standard deviation. Data from 10 participants who completed the Go-To Educator Training.

Qualitative Findings

Two participants completed the optional open-ended question, "please provide any comments you'd like us to know about your satisfaction with the training experience" on the

TSQ. One participant highlighted that they appreciated that time was taken for "relevant tangents" and that the trainer followed up individually with participants with additional resources for questions when they ran short on time. The other participant stated, "your course taught me a lot about mental health" and that "I did not learn as much as I could have, however, simply because I was trying to juggle several different things as I was taking this course."

During the focus groups and interviews, participants were also asked about the relevance and acceptability of the training content to better understand their perspectives on the social validity of the training. The coding team organized participants' responses into main categories to understand (a) if participants thought the training content was relevant or not and (b) considerations and reasons that the training content was relevant. Within the main category of participants' opinions of the relevance of training content ($N = 8$), there was one subcategory, relevant training content ($n = 8$) that included comments such as, "I honestly think it was super helpful and relevant" and "so definitely relevant, relevant material." There were not any comments during the focus groups or interview that the training content was irrelevant.

Within the main category of considerations and reasons why the training content was relevant ($N = 15$), there were three subcategories. The subcategory of each part of training seemed relevant ($n = 6$) included descriptions that much or all the training content was relevant information and included comments such as:

> I never felt like oh, well, you know, it's like in some PDs with teaching, and you just kind of like, oh, I can kind of kind of daydream a little bit, think about other things because this isn't quite relevant to me. And I never felt that way during the training.

The second subcategory was that middle school teachers interact daily with students around mental health ($n = 6$) and consisted of units describing that the training was relevant because

teachers work daily with middle schoolers who are experiencing diverse mental health states. Examples include, “I'm working with middle school students, population. I would say it's [mental health] something that I'm in contact with every day” and “and to where I could see how it would correspond in my classroom, or how I could relate it to something similar to one of my students.” The third subcategory for considerations the content was relevant was recommend training to other educators (n = 3) with units endorsing that the Go-To Educator Training was a relevant training that participants would recommend to other educators, stating “I definitely think every educator should have to go through something similar to this.”

Participants shared their opinions on the acceptability of the virtual delivery methods of synchronous Zoom or the asynchronous videos, depending on which version the participants completed. For the main category of opinion on the acceptability of Zoom virtual delivery methods (N = 9), there were two subcategories with units either endorsing that participants liked virtual Zoom (n = 8) or did not like virtual Zoom (n = 1). Participants shared reasons that the Zoom virtual delivery methods were acceptable (N = 15) and coders identified four subcategories. The subcategory of virtual adds convenience (n = 6) included units describing that the virtual modality was convenient, comfortable, and reduced barriers to attending a synchronous session in person. For example, one participant stated, “and I yeah, just the the virtual of, I thought it was very helpful, too, because then I didn't have to worry about being somewhere, and then being late and missing.” The subcategory of size of the group supported virtual engagement (n = 5) included responses that the size of the group participating synchronously worked out and predictions that it may not have worked out as well with a larger group, with comments like, “I think with the size of the group that we had [virtual worked out well].” There were also units emphasizing that virtual was accessible to parents/caregivers (n =

3). One participant said, “just as a busy, as a mom as a busy person it was really nice that like it wasn't, hey? You don't have to be some place at this time.” Finally, one participant thought that the virtual format helped attention (*n* = 1) during the training.

One participant shared multiple reasons that the Zoom delivery methods were unacceptable (*N* = 6) and coders organized units into three subcategories. The first subcategory was that virtual was less collaborative (*n* = 3) with comments like, “and I also think people are more willing to participate when we're sitting in a room together versus when we're on a computer screen.” Other negative feedback on Zoom delivery methods included having difficulty with attention (*n* = 2), which included units such as, “it's super hard for me to stay focused on my computer screen and not multitask because my brain has 100 tabs open. And so I'm like, okay, let's do this. Well, I’m doing this, and I think I can like multitask.” The final subcategory, past negative experiences with virtual education (*n* = 1), included a description of disliking Zoom because “I finished my college years on zoom like my junior and senior year were during Covid, so I absolutely hate it.”

Participants who engaged in the Go-To Educator Training asynchronously also described their opinions on the acceptability of the asynchronous delivery methods in the subcategory, liked asynchronous format (*n* = 4). Comments included, “and I liked how it was in the recorded zoom” and “yeah, I really liked how it was delivered.” There were no comments endorsing disliking the asynchronous format or that it was unacceptable. Coders organized units describing reasons the asynchronous delivery was acceptable (*N* = 11) into three subcategories (a) training on own time (*n* = 5), (b) questions guided attention during videos (*n* = 4), and (c) variety in guiding questions (*n* = 2). Participants described an appreciation for the ability to review videos on their own time as follows:

> I guess. Just to say again, like the videos are nice, because since we weren't all able to meet, we could watch the videos on our own time, when we were able to have time to go back, or like take the time to listen.

Participants also described their perspectives on the guiding questions that were required to complete with the asynchronous videos. Units included references to the questions helping to guide attention like, “and [questions] helps you kind of pay attention as you're going through like reflecting on what you learned” and liking the variety of types of question by stating, “there was a variety of questions like some were short answer, and some were like clicking. I liked that just because it's also another variety.”

Mixed Methods Integration

The information gathered from the TSQ was merged with the findings from the focus groups and interviews about participant satisfaction and acceptability of the Go-To Educator Training. In Table 15 each of the TSQ item domains are listed with the corresponding quantitative findings, a brief statement of qualitative experiences related to that domain, and then whether the qualitative information converged, diverged, or expanded the TSQ results. Findings either converged or expanded as there was not a domain in which the qualitative information only diverged, or disagreed, with the positive TSQ ratings. Qualitative findings expanded on participant opinions on whether the Go-To Educator Training was the kind of training they wanted, which according to the TSQ, the average response was between “yes, generally” and “yes, definitely.” The subcategories identified from participant responses in the focus groups included that each part of the training seemed relevant and participants primarily positively endorsed the virtual formats for the kind of training, which provides more specificity than the TSQ findings alone. Additionally, participants were asked on the TSQ if their training needs

were met, which the average rating was between "most of my needs have been met" to "almost all of my needs have been met." In the qualitative responses, the subcategories within the main category of strengths and memorable features describe specific training needs that were met (e.g., coverage of language related to mental health) and the subcategories in the areas of training to improve provide specific examples of ways that needs were not met (e.g., want for more classroom scenario applications and applicable tools and resources).

Table 15

Joint Display of Participants' Experiences of Training

TSQ Domains	Quantitative results	Qualitative experiences	Converge, diverge, expand
Quality of training	*M* = 3.40, so between "Good" and "Excellent"	Subcategory of general positive feedback about the training (n = 6) like "and so I mean, it was really good"	Converge
Kind of training	*M* = 3.40, so between "Yes, generally" and "yes, definitely"	Subcategory of each part of training seemed relevant (*n* = 6) Participants primarily positively endorsed the kind of training in subcategories of liking virtual Zoom (*n* = 8) and liking asynchronous (*n* = 4). There was subcategory of did not like virtual Zoom (*n* = 1).	Expand
Training needs met	*M* = 3.50, so between "Most of my needs have been met" to "Almost all of my needs have been met"	Subcategories within strengths section highlight specific training needs that were met (e.g., diversity of mental health disorders covered) Subcategories within areas to improve provide insight into unmet needs (e.g., seeking more in-depth coverage of certain disorders)	Expand
Recommend training	*M* = 3.70, so between "Yes, I	Subcategory recommend training to other educators (*n* = 3)	Converge

	think so" to "Yes, definitely"		
Amount of training	*M* = 3.40, so between "Mostly satisfied" to "very satisfied"	Conflicting opinions on the length, or amount of training. Subcategory of length of training (*n* = 2) as a strength, yet also wanting an increase in the length of training (*n* = 1) or divide training into more sessions (*n* = 3) as subcategories in areas of the training to improve	Expand
Training helped understanding of youth mental health	*M* = 3.60, so between "Yes, it helped somewhat" to "Yes, it helped a great deal"	Conflicting opinions on whether knowledge or understanding improved. Subcategories of endorsing improvements (*n* = 1) and uncertainty if knowledge changed (*n* = 1) Main categories of reasons that training did or did not impact knowledge provide nuance of types of understanding gained	Expand
Overall satisfaction	*M* = 3.46, so between "Mostly satisfied" and "very satisfied"	Subcategory of general positive feedback about the training (*n* = 6) as a strength and memorable feature	Converge
Likelihood to return to this training	*M* = 3.70, so between "Yes, I think so" and "Yes, definitely"	At least one participant wants to review training again, "I think we all know as teachers that you know you you're responsible for a bunch of different things, so I know that I actually did what I was supposed to do, but I would like to go back and look at it again."	Converge

The other areas in which the qualitative findings expanded on the TSQ quantitative results are satisfaction with the amount of training and if the training received helped participants understand youth mental health. For the amount of training, the TSQ average rating was between "Mostly satisfied" to "very satisfied." The qualitative findings illustrate some complexity and conflicting opinions of the participants on their satisfaction with the length, or amount of

training. The subcategory of length of training was identified as a strength, yet the subcategories wanting an increase in the length of training and divide training into more sessions were subcategories in areas of the training to improve. Finally, the TSQ included whether participants thought the training helped them increase their understanding of youth mental health. The average rating was between “yes, it helped somewhat” to “yes, it helped a great deal.” In the mixed methods section for Research Question 3, there is a description of the ways in which the quantitative findings from the MHL-ED and qualitative responses in the main categories of opinions and reasons that the training did or did not impact knowledge provide a more complex understanding than the TSQ results alone.

Chapter V: Discussion

The purpose of the present study was to conduct the first randomized controlled trial with an embedded mixed-method design evaluating the impact of the Go-To Educator Training (Wei & Kutcher, 2014) with U.S. educators of middle school students delivered by virtual training methods. The current study was needed to expand upon the prior evaluations of the impacts of the Go-To Educator Training which were all conducted by the program developers with Canadian educators. This study uniquely expands prior research on the efficacy of the Go-To Educator Training by measuring educators' mental health self-efficacy in addition to knowledge and stigma and including qualitative follow up to center educators' perspectives on their training experience and the impacts of the training on their knowledge, stigma, self-efficacy, and behaviors. Findings relative to the impacts of the Go-To Educator Training, strengths and areas for improvement, and social validity are discussed below. Finally, limitations, future research directions, and implications are included.

Impacts of the Go-To Educator Training

The first three research questions asked about the impacts of the Go-To Educator Training on educators' MHL knowledge, stigma, and self-efficacy as measured by the quantitative pre- and postintervention surveys and themes from an interview and focus groups. For the quantitative measures, the hypothesis that educators assigned to the Go-To Educator Training would statistically significantly increase their MHL knowledge compared to educators in the control group is supported from this study, but not the hypotheses of statistically significant decreases in mental health stigma or increases in mental health self-efficacy. The intent-to-treat analysis with the assuming no change approach to missing data and the completer analysis found statistically significant improvements in knowledge as measured by the MHL-ED

but did not find statistically significant improvements in stigma or self-efficacy. Notably, the results from the intention-to-treat analysis using multiple imputation to account for missing postintervention data found statistically significant differences between those assigned to the intervention and control for their postintervention MHL knowledge, GTE Stigma items, Stigma Personal Attitudes items, and self-efficacy as measured by the SMH-SETS; however, the research question is best evaluated under the intent-to-treat analysis assuming no change given the assumptions of multiple imputation. Overall, the results align with prior one-group pre-experimental evaluations of the Go-To Educator Training that found educators improved in their MHL knowledge measured by the MHL-ED (Kutcher & Wei, 2013; Wei & Kutcher, 2014; Wei et al., 2021).

Regarding stigma, the lack of statistically significant improvement from the current study conflicts with prior one-group pre-experimental evaluations of the Go-To Educator Training that found educators improved in their stigma from the GTE Stigma items from pre- to postintervention (Kutcher & Wei, 2013; Wei & Kutcher, 2014; Wei et al., 2021). There were activities in the training explicitly addressing stigma and participants reflected on their own beliefs of a person with mental illness, learned about types of stigma, reviewed mental health myths and facts, and learned strategies to reduce stigma in schools. Compared to the prior evaluations, this study had a smaller sample size and was underpowered to detect effects for GTE Stigma items.

Use of the adapted Stigma Personal Attitudes and Stigma Community Devaluation Discrimination items was novel for this evaluation of the Go-To Educator Training. The lack of significant findings from the intent-to-treat analysis assuming no change and the completer analysis indicates that the training may not impact educators' own beliefs and their perspectives

on the extent of public stigma other teachers have towards children with mental health disorders and their parents/caregivers. However, it could be possible that the lack of significant findings are due to the small sample size and measurement difficulties since the items used in this study were adapted without evaluation of the reliability and validity of the tools. For instance, the Go-To Educator Training may impact educators' perceived public stigma through the discussions educators have with other participants in the training or other aspects of the training content, but that the three adapted items selected from the ACMHQ's nine-item Stigma Community Devaluation Discrimination scale (Heflinger et al., 2015) for this study were not capturing the construct with validity. Although there is not evidence of the Go-To Educator Training improving perceived public stigma of other educators, there is preliminary evidence that Y-MHFA can significantly reduce personal and perceived public stigma (Morawska et al., 2013). For that evaluation, The Personal and Perceived Stigma Scale (Griffiths et al., 2004) was used in which participants rated their level of agreement with stigma statements, first for their personal beliefs and then what they thought most people believe. Further research investigating the Go-To Educator Training could consider using the full scale from the ACMHQ's Stigma Community Devaluation Discrimination Scale or other measures like the Personal and Perceived Stigma Scale. Overall, findings from this study suggest that the Go-To Educator Training does not significantly change educators' personal stigma or their perspectives on the extent of stigma among other educators.

This is the first study to investigate the Go-To Educator Training on educators' SMH self-efficacy, or their confidence to teach students with mental health needs, recognize and respond to concerns, and promote positive mental health in their classrooms. According to UTB, self-efficacy is an influential factor on behavioral intentions and improved self-efficacy is

thought to improve behavioral intentions (Banh et al., 2019; Smith et al., 2021). Given the potential importance of self-efficacy for behavior intentions, it may be an important outcome that school districts and other stakeholders value when comparing and selecting a MHL intervention to implement. Prior investigations of the MHL intervention Y-MHFA found that participants improved their comfort helping someone (Aakre et al., 2016), confidence to identify and respond to students with mental health problems (Gryglewicz et al., 2018), and confidence to engage in helping behavior (Haggerty et al., 2019; Kidger et al., 2016; Rose et al., 2019). The main quantitative analysis approach of the intent-to-treat analysis assuming not change and the completer analysis did not find statistically significant impacts on self-efficacy as measured by the SMH-SETS, but the analysis using multiple imputation did. This study was underpowered to detect effects for self-efficacy, so it may be beneficial for future research with larger sample sizes to measure self-efficacy to better understand if the Go-To Educator training improves self-efficacy of educators.

Additionally, the qualitative findings and mixed methods integration for impacts on knowledge, stigma, and self-efficacy provide new, additional details of participants' perspectives on their opinions of changes and examples or reasons why they felt the Go-To Educator Training was impactful in each outcome domain. Only one of the prior evaluations of the Go-To Educator Training included focus groups but they only gathered feedback on ways to improve the training rather than ask educators about their perspectives on the impacts of the training on their knowledge, stigma, self-efficacy, or other outcomes (Kutcher & Wei, 2013). This study found that compared to the quantitative findings, qualitative themes primarily expanded with some divergence for knowledge, diverged with some convergence for stigma, and diverged with some convergence for self-efficacy. Overall, educators' opinions were not in complete agreement for

each outcome area, which is represented in the mixed methods integration by the inclusion of more than one descriptor for the ways in which the quantitative and qualitative data converged, diverged, or expanded.

For the outcome of knowledge, subcategories expanded beyond types of knowledge included in the MHL-ED, like knowledge of how to talk and check in with students, how to support during a school crisis like a school shooting, and what a teachers' role is in supporting youth mental health. Areas of divergence for knowledge included educators' sharing in the focus groups and interviews reasons they thought that the training did not improve their knowledge, countering the quantitative findings. For stigma, the qualitative findings primarily diverged from the quantitative, as there were more units identified in educators' responses that described opinions of improvement in stigma and reasons for improvement, than a lack of change in stigma. However, there was one opinion of a lack of impact on stigma, which converged with the quantitative findings. For self-efficacy, the qualitative findings primarily diverged with the quantitative as there were more units identified in educators' responses that described opinions of improvement in confidence or self-efficacy and reasons for improvement, than a lack of improvement. An example of a specific area of improved comfort included the mental health referral process. Educators also described that learning more knowledge and tools for youth mental health improved confidence. Similar to the outcome of stigma, for self-efficacy there were some units describing a lack of improvement, described as "continued discomfort" in supporting youth mental health, which converges with the quantitative findings.

This was the first study to explore educators' perspectives on their experiences incorporating information from the Go-To Educator Training into their work during the month immediately post-training. When asked during the focus groups and interview whether the

training impacted their behaviors to support students, there were mixed opinions, but overall educators provided more examples and reasons for behavior change than a lack of behavior change. Educators reported behavior changes such as communicating more effectively with parents and colleagues about youth mental health, improved ability to educate students on mental health topics, more effective conversations with students about mental health, increased advocacy for students and mental health, creation of intentional spaces to listen to students, actions to learn more about youth mental health, and that they were able to take some actions in their classrooms. In contrast, some prior studies of Y-MHFA that measured behaviors quantitatively did not find improvement in helping behaviors (Jorm et al., 2010; Kidger et al., 2016) or behaviors to seek more information about mental health problems (Jorm et al., 2010). However, one investigation that interviewed participants found they offered assistance for individuals they encountered experiencing mental health problems posttraining (Morawska et al, 2013). One evaluation of The Guide Professional Development Program found that over three-fourths of the participants trained identified students who had a mental health problem and advised students to seek mental health services (Kutcher, Wei, Costa, et al., 2016). The current study provides more nuance to the types of behavior changes that educators may experience from a MHL intervention, including changes in classroom-wide approaches like ability to educate students on mental health topics, create intentional spaces to listen to students in class, and take actions in their classroom. Since educators are often involved in mental health services at the universal, classroom-level (Franklin et al., 2012), this study provides some support that the Go-To Educator Training helps to prepare educators to engage in those classroom-level supportive behaviors.

Educators in the current study shared that they were able to communicate more effectively with other adults and students about mental health, but they did not provide descriptions of giving referrals to mental health care as a behavioral outcome. However, educators did endorse increased comfort in mental health referral processes. Experts in SMH suggest that being able to identify, support, and then refer students experiencing mental health distress are important aspects of educators' knowledge and behaviors to support youth mental health (Semchuk et al., 2021). Referral to services also targets actions in the Gateway Provider Service Framework (Stiffman et al., 2004) and pathway to accessing mental health care (Werlen et al., 2020). One reason for limited examples of behavior changes that educators provided was that they had not had to use their knowledge or behaviors yet since the focus groups and interview were approximately one-month post training. It is possible that educators had not had to refer students for mental health services in that time frame or that the lack of a focus group question explicitly asking about referrals limited gathering examples of this type of behavior.

As for barriers for applying content from this training, the main themes identified included the challenges of balancing attending to youth mental health with other responsibilities as teachers, the extent of parent involvement needed in SMH, lack of confidence to apply training information, and other external factors. Barriers identified in the current study align to some extent with prior research on MHL trainings with educators and UTB. First, this study's results include two of the three categories denoted by Morawksa and colleagues (2015) in their evaluation of Y-MHFA with educators that there can be helper barriers (e.g., feeling uncomfortable), environmental barriers (e.g., accessing services), and person barriers (e.g., resistance or denial from youth). In the current study, educators did not endorse resistance from youth, but were concerned about approaching resistant parents or caregivers about youth mental

health needs. The barrier themes the coding team identified in this study can also be compared to the proposed set of factors from UTB that influence intentions to engage in a behavior and translation of intention to action (Jaccard et al., 2002; Smith et al., 2021). The key factors from UTB thought to influence behavioral intentions include expectancy, attitudes, social norms, and self-efficacy (Banh et al., 2019; Smith et al., 2021). UTB also suggests that salience, constraints, habits, and knowledge/skills can impact the enaction of behaviors. Educators in the current study described a lack of self-efficacy or confidence as an influential barrier for their behavior change. Educators also gave examples of some of the constraints that impact the enaction of behaviors (e.g., balancing commitments, other external factors).

Educators shared that the push for mental health and SEL in schools and an openness from their school's staff to mental health training are facilitators for the Go-To Educator Training and their ability to apply its content. These findings are encouraging, given that there have been federal and state-level efforts to push for comprehensive SMH systems that include enhancing MHL (e.g., U.S. Department of Education, 2021; Wisconsin Department of Public Instruction, 2023). Additionally, the finding that educators view their colleagues as being open to mental health training aligns with prior research that educators identify a need for further training in mental health (Deaton et al., 2022; Graham et al., 2011; Moon et al., 2017; Reinke et al., 2011). From a UTB perspective, this push for SMH aligns with the factor of salience, suggesting that educators' enaction of mental health supportive behaviors are more likely in schools where SMH is salient and supported. Preliminary research on the implementation of Classroom WISE, an online mental health literacy training package for teachers, also found that school-level factors like whether a school has a mental health protocol, impacts adoption of the MHL program (Canelo et al., 2023). Overall, knowledge of the barriers and facilitators educators perceive is

beneficial to understand for future implementation of the Go-To Educator Training as new content could be added on strategies to overcome barriers and leverage facilitators in their school environments.

Strengths and Areas to Improve

This study gathered educator perspectives on strengths and areas for improvement of the Go-To Educator Training since it was the first use of the training with middle school educators in the context of Wisconsin. Themes for the strengths can be organized in three main areas of general positive feedback, aspects of the facilitation, and parts of the content. The strengths related to facilitation included enjoying the discussions and interactions with other educators, trainer's responsive facilitation, follow-along presentation slides, embedded relatable videos, length of the training, and training timing mid-school year. Research has shown that active engagement and professional development that supports collaboration, like discussions and interactions with other participants, is important for effective professional development (Darling-Hammond et al., 2017). The strengths related to content included liking the coverage of language related to mental health, diversity of mental health disorders covered, inclusion of mental health supportive strategies reinforcing how to support students in the classroom, sequencing, and in-depth break down of mental health disorders, and content of what not to do to support students. Prior research also indicates that educators want to have training on concrete strategies of what to do to support youth and how to have conversations with students (Shelemy et al., 2019).

In addition to strengths, educators provided suggestions for improvement of the Go-To Educator Training. Themes for areas of improvement are organized by aspects of the facilitation, and aspects of the content. Facilitation-related areas for improvement include having the training resources more organized and accessible, divide the training into more sessions, increase the

length of training, and offer the training at another time during the school year. Notably, there were conflicting opinions by educators in the focus groups and interview on the length of the training and timing of training during the school year as those ideas were brought up as strengths and areas to improve by different educators. The content-related areas for improvement including wanting more in-depth coverage of certain mental health disorders, classroom scenario applications, and applicable tools and resources to use in the classroom and time to investigate them during the training sessions. A want for more classroom-applicable strategies is frequently one of the suggestions educators reported when asked what they need more knowledge of related to youth mental health (Deaton et al., 2022; Kidger et al., 2016). Prior evaluations of the Go-To Educator Training in Canada that gathered areas for improvement incorporated the feedback (e.g., offering over multiple days, more in-depth information on mental health services system navigation) into the current iteration of the training (Kutcher & Wei, 2013; Wei & Kutcher, 2014). Addressing the feedback from this current study should be considered for any future use of the Go-To Educator Training with educators working in a similar context of the state of Wisconsin.

Social Validity

General Satisfaction

The final research question inquired about the extent to which educators perceived the Go-To Educator Training as socially valid. Social validity was measured quantitatively by the participants who completed the training using the TSQ (Larsen et al., 1979; Kratochwill et al., 1991). The hypothesis that educators who participated in the Go-To Educator Training will rate it with high satisfaction was met. On average, participants' endorsed between 3 (*satisfaction*) and 4 (*extreme satisfaction*) for the TSQ total score and item scores. This positive endorsement of the

Go-To Educator Training parallels participant feedback in prior investigations of the Go-To Educator Training where average satisfaction ratings were between 4 (*very good*) from 5 (*excellent)* during a different immediate post-training survey (Wei & Kutcher, 2014; Wei et al., 2021). The qualitative feedback converged and expanded with the TSQ ratings to provide more nuanced understanding of participants' endorsement of positive satisfaction and opinions on the high relevance and acceptability of the training.

Opinions on Virtual Formats

Since this study was the first to evaluate the Go-To Educator Training delivered using virtual synchronous and asynchronous methods, educators were asked to provide feedback on the virtual modalities. Overall, educators shared more statements that were coded as opinions that the synchronous Zoom virtual delivery and the asynchronous pre-recorded formats were acceptable than statements of disliking the virtual formats. Participants shared reasons that the Zoom virtual delivery methods were acceptable, including that it was convenient, the size of the group supported virtual engagement, that virtual was accessible to participants who were parents/caregivers, and that the virtual format helped attention. For the asynchronous format, some of the reasons were that it was helpful to do training on their own time, that the corresponding questions for the videos guided attention, and appreciation for the variety in guiding questions. Some of the benefits that participants highlighted like the convenience, flexibility, and access for parents/caregivers to participate are often recognized as benefits for virtual professional development (McConnell et al., 2013; Meyer et al., 2023). The feedback from participants who engaged synchronously that the small size of the group supported virtual engagement is important to consider for future implementation of the Go-To Educator Training, especially since participants described that they thought it would be less engaging if the group

size was bigger. This preference for a smaller group size may reflect an interest in having collaborative professional development environments (Carrillo & Flores, 2020; Darling-Hammond et al., 2017). Notably, there was one participant who endorsed not liking the Zoom method of delivery and a preference for in-person training because the individual thought virtual was less collaborative, challenging for attention, and they had past negative experiences with virtual education.

Limitations and Future Directions

Several limitations exist and should be addressed in future research examining the impact of the Go-To Educator Training on middle school educators' mental health literacy. First, it is necessary to consider the external validity of this study and the extent to which the findings can be generalized to other contexts. This study recruited individual educators to participate, who were then randomized to either the intervention or waitlist control groups. This recruitment method resulted in 34 participants from 19 school districts across the state of Wisconsin, including rural, town, suburban, and city school districts, with more rural and town representation than suburban and city. The inclusion of participants across the state with some variety of locales, school sizes, and student services support staff (see Tables 2 and 3) supports the generalizability of the findings in the state of Wisconsin, especially for rural and town districts. Future research may further explore use of the Go-To Educator Training in larger urban districts to explore whether adaptations may be necessary to the content to address the roles and responsibilities of educators in supporting student mental health in larger districts which may have more structures and staff for comprehensive SMH. There are also limits to the generalizability of educators based on demographic characteristics since approximately 91% of the participants identifying as female, 97% as white, and 100% as not Hispanic or Latino. Future

research should aim to purposefully sample to have more gender, racial, and ethnically diverse educators participate in the Go-To Educator Training and gather their feedback. Additionally, since individual educators responded to recruitment materials, there may have been a selection effect of those who decided to participate in the study compared to other educators at their schools, which limits generalizability.

Another challenge for this study was that because educators enrolled in the study individually from different schools, the synchronous virtual Go-To Educator Training sessions had to be scheduled in the evenings or weekends. It was challenging to coordinate schedules across all participants in the intervention group and then some participants engaged in the Go-To Educator Training asynchronously. Scheduling conflicts was one of top two reasons noncompleters endorsed for why they did not engage in the training. Future research on MHL interventions like the Go-To Educator Training should aim to recruit entire schools to participate and randomize at the school-level so that the MHL intervention can be integrated into the schools' annual professional development schedule to reduce scheduling barriers.

The small sample size was also a major limitation of this study. From the existing investigations of the Go-To Educator Training and similar MHL interventions, power analyses indicated that the total sample sizes needed to detect the estimated effects included 12 educators for knowledge, 90 educators for stigma, and 246 educators for self-efficacy. Due to recruitment and time constraints, the study's sample size was 34 educators and thus it was only powered to detect effects within the range of relevant prior studies for knowledge but underpowered to detect effects for stigma and self-efficacy. The current study's findings are preliminary and should be confirmed in a larger scale RCT. A larger sample size could increase power to detect

effects on stigma and self-efficacy, and better align with the ANCOVA analyses comparing between group differences of the outcomes.

This study is further limited by the rates of participant dropout and noncompletion of the intervention within the intervention group. The overall rate of attrition in this study was 8.82% when considering the three dropouts and the differential attrition was 21.4% because all three dropouts were from the intervention group. There were also four participants in the intervention group who did not complete the intervention as assigned but did complete postintervention assessments, further limiting the sample of participants who completed the Go-To Educator Training. The high attrition introduced bias and although including both the ITT analyses and completer analysis approaches were included to estimate effects, the quantitative results should be interpreted with some caution. Additionally, the rates of dropout and noncompletion decreased the sample of individuals who had completed the intervention who were eligible to participate in a focus group or interview. This study planned to have a larger sample of participants to give qualitative feedback and it might have been helpful since there were some educators who reported uncertainty in their responses (e.g., subcategory of uncertainty if knowledge changed). Future research using qualitative focus groups and interviews could also benefit from greater sample sizes to insure sufficient coverage for themes. Also, the participants assigned to the waitlist control group did not access the intervention when given the opportunity. This limited the overall sample size of individuals who engaged in the Go-To Educator Training.

Relatedly, individual-level randomization was used to assign participants to either the intervention or control group. Randomization was expected to create groups that were reasonably well-matched on all baseline variables. There were statistically significant differences between the two groups on the 8-item GTE Stigma measure ($p = 0.01$) and the Personal Attitudes stigma

items ($p = 0.02$) at preintervention. Preintervention scores were significantly lower for the intervention group, which indicates participants in the intervention group endorsed more negative, stigmatizing beliefs than those in the waitlist-control group prior to the start of the study. The analytical approaches used in this study included controlling for preintervention scores for all measures to help account for preintervention scores. Future research should consider the extent to which participants across condition are reasonably matched on preintervention scores, past MHL training experiences, and demographic variables, like a current or history of a mental health disorder diagnosis.

Another limitation of the current study was the lack of longitudinal research design. Although participants' knowledge, stigma, and self-efficacy were measured and pre- and postintervention and the qualitative data was gathered approximately one-month post-training, the long-term impacts of the Go-To Educator Training could not be measured with the current study design due to resource and time constraints. When asked about barriers to using information from the Go-To Educator Training during the focus groups and interview, there was one subcategory that participants had not had to use behaviors yet. Incorporating additional follow up time points with quantitative and qualitative measures for learning and behavior change could be beneficial, especially since some of the recommendations in the training for behaviors (e.g., referral process) may not occur at a high frequency in one month. One of the prior published evaluations of the training included a 3-month follow-up and found that knowledge improvements persisted over the 3-month period (Kutcher & Wei, 2013). This provides initial support for lasting improvements in MHL knowledge, yet the study was limited given that it had a pre-experimental one group design and only included one outcome of knowledge. Future research should utilize longitudinal designs to be able to better understand the

long-term impacts of participating in the training for educators' knowledge, stigma, self-efficacy, and behaviors. There is growing research in educator professional development that multicomponent, longer-duration professional learning activities, which include follow-up assistance, can be more efficacious for changing educators' knowledge and skills than single workshop formats (Blank, 2013; Ventista & Brown, 2023). Additionally, a study of another MHL intervention, Classroom WISE, found that schools were more likely to use the training when there were greater support strategies, including an orientation webinar, implementation guide, individualized school sessions, and 2 community of practice sharing sessions (Canelo et al., 2023). Depending on future research including follow up, there could be benefits to the development and evaluation of booster sessions, community of practice sessions, or use of other implementation strategies to support educators' long-term youth mental health learning from the Go-To Educator Training.

Outcome measurement challenges is also a limitation of the current study and area for continued research. First, for each of the quantitative measures, the same items were used for pre- and postintervention assessments, replicating the measurement design of other evaluations of the Go-To Educator Training (Kutcher & Wei, 2013; Wei & Kutcher, 2014; Wei et al., 2021). This approach has the advantage of being able to compare responses before and after training compared to post-test only or post-then-pre retrospective methodology. However, a disadvantage of using the same exact items is that the educators may have remembered or learned from the preintervention survey itself, biasing the results based on preintervention responses rather than the effect of the training.

For the quantitative tools, the MHL-ED was created by the developers of the Go-To Educator Training and is aligned with content in the training. However, as a tool to capture

educator MHL holistically, it does not fully capture areas of knowledge that experts in the field of SMH have identified as important for educators, like knowledge of strategies to use in the classroom to promote youth wellness and a positive classroom climate, screening for mental health disorders, how to support youth with mental health disorders in the classroom, or how to refer students experiencing mental health distress within a school (Semchuk et al., 2023). Future research could investigate the impacts of the Go-To Educator Training using existing alternative mental health knowledge measures like the Mental Health-Promoting Knowledge Scale (Nalipay et al., 2023) or create SMH literacy specific tools. To measure stigma, this study included three sets of adapted items because there are limited validated tools designed for educators to measure stigma related to students with mental health disorders (Wei et al., 2018). Future research is needed to design and evaluate educator mental health stigma scales to use in evaluations of educator mental health literacy programs. For example, adapting and validating the entire Attitudes About Child Mental Health Questionnaire (ACMHQ; Heflinger et al., 2015) could be a useful first step.

This study did not include any quantitative tools to measure educator behavior change from the Go-To Educator Training, which limits understanding of the impacts of the intervention on behavior to educator self-report in the focus groups and interview. Future research directions may include creating checklists of supportive educator behaviors for youth mental health for educators to reflect on the frequency of use prior to intervention and then post-intervention after a follow-up period (e.g., three months). Checklists could be created using the examples of behavior changes educators provided in the current study (e.g., communicating with caregivers about youth mental health, teaching MHL lessons for students), prior evaluations of other MHL interventions for educators (Jorm et al., 2010; Kidger et al., 2016; Morawka et al., 2013), and

SMH expert consensus. Direct measures of educator behaviors could also be incorporated in future research through classroom observations or by comparing rates of student mental health referrals for trained and untrained educators. Finally, studies could directly ask educators post-training about the potential influence of the key factors from UTB that are thought to influence intentions to engage in a behavior and translation of intention to action (Jaccard et al., 2002; Smith et al., 2021).

Implications

Implications for Research

Prior research that examined the Go-To Educator Training found promising results on improving Canadian educator knowledge and stigma when evaluations were conducted by the training developers and used one group pre-experimental research designs (Kutcher & Wei, 2013; Wei & Kutcher, 2014; Wei et al., 2021). The current study expanded upon that foundational research by increasing the methodological rigor as it was the first randomized controlled trial with an embedded mixed-method design evaluating the impacts of the Go-To Educator. Although there were limitations in the sample size recruited and the extent of attrition and completion of the intervention as assigned, the study found preliminary quantitative evidence of beneficial impacts on educators' knowledge and qualitatively, educators' described perceiving some changes in their knowledge, stigma, self-efficacy, and behavior. The future research directions outlined above include important considerations for future evaluations of the Go-To Educator Training and the broader field of MHL interventions given the predominance of pre-experimental research designs, inconsistencies in measurement of outcomes of interest, and lack of evaluations including long-term impacts.

The current study included embedded mixed methods with the purpose of gaining a more in-depth understanding of educators' experiences with the Go-To Educator Training, its impacts, and the social validity of the training through the integration of quantitative and qualitative findings. This study was informed by prior investigations utilizing quantitative and qualitative methods to evaluate MHL interventions for educators (e.g., Morawska et al., 2013) and research on the use of mixed methods designs in intervention evaluations in prevention science (Zhang & Watanabe-Galloway, 2014). Future research evaluating MHL interventions may benefit from this example of a small-scale study utilizing mixed methods in a sequential design that embeds qualitative data collection after the experimental intervention to better understand educators' subjective experiences of the intervention and explore outcomes in more detail (Creswell & Plano Clark, 2018). Mixed methods provided a main benefit of distinguishing areas of convergence, expansion, and divergence among outcome variables and the social validity of the Go-To Educator Training that likely would not have been highlighted in a solely quantitative or qualitative study.

Other strengths of mixed methods include the flexibility to use quantitative and qualitative methods to address different types of research questions in one overall project (Creswell & Plano Clark, 2018). This study's mixed method design is just one example of many options for creating mixed method evaluation studies (Creswell & Plano Clark, 2018; Zhang & Watanabe-Galloway, 2014). Another relevant mixed methods approach for MHL intervention evaluations could be the use of sequential designs where qualitative data collection precedes a primarily quantitative experimental evaluation of a MHL intervention. This could allow intervention developers to gather feedback on a MHL intervention and make adjustments prior to evaluating the intervention. Finally, the current study experienced some challenges that arise

from the use of mixed method designs that are important for future researchers to consider when selecting a mixed methods evaluation design, like having sufficient resources, time, and effort to successfully implement several phases of a research project and issues of burden and attrition for participants.

Implications for Practice

Beyond improving understanding of the Go-To Educator Training and providing insight into future research, this study also contributes to a growing practice area in SMH of implementing MHL interventions for school staff and students. At a federal level, the U.S. Department of Education (2021) described enhancing MHL as one of their key recommendations to supporting student social, emotional, behavioral, and mental health needs.

Some states are also recommending or requiring school staff to engage in MHL training by law. For example, Nebraska recently passed legislation to require school districts receiving competitive grants provided by lottery funds to engage in MHL trainings (Nebraska LB 852, 2022). Given the recommendations for educators to engage in MHL interventions and for schools to invest in programs, it is important that there are accessible and engaging trainings available with evidence supporting the improvement of key MHL-related outcomes and high levels of satisfaction by educators. This study provides additional support for the Go-To Educator Training as a potential MHL program to fit these requirements.

This study evaluated an adapted version of the Go-To Educator Training for the Wisconsin context with approval from the current team researching and implementing the program in Canada. The developers of the training recommend that the core components of MHL interventions need to be maintained in all situations but then how those core components are taught should fit the context so that it is relevant for participants (Kutcher, 2016). This

study's significant findings provide preliminary support for this recommendation. Adaptations in this study that may be relevant for future implementers to consider in practice included replacing Canadian-based epidemiological statistics with national and state-level information, integrating descriptions of national and/or state-level comprehensive SMH system frameworks, adding examples of mental health-related resources available by state organizations, and updating the resources for further learning with national, state, and local organizations. Further adaptations could be made if the program was implemented in one school district, such as embedding school district specific SMH system procedures (e.g., referral procedure)

Additionally, this study gathered educators' feedback on the social validity, areas of strength, areas to improve, and use of virtual delivery methods for the Go-To Educator Training. Although this feedback was gathered for a specific MHL training and in the context of a small efficacy trial, these findings may be impactful for practitioners to consider when selecting programs and creating plans for implementation with a similar population of educators in similar contexts. For example, this study ran into some logistical challenges in delivering a training with participants across-school districts with scheduling the intervention sessions given the many school day schedules and competing demands for educators' time. The training was offered outside of school hours and participants primarily positively endorsed liking the virtual Zoom synchronous and the asynchronous version. In the focus groups and interviews, educators shared the added convenience and flexibility of virtual formats. If future implementers of MHL trainings are offering training outside of the structure of school professional development time, they may also benefit from offering multiple formats to participate. Additionally, educators provided strengths and areas to improve related to aspects of facilitation that might be relatable

to the facilitation of any MHL intervention, such as enjoying discussions and interactions with other educators and wanting to have organized and accessible training resources.

Finally, educators' perspectives on barriers and facilitators to the implementation of the Go-To Educator Training are likely relevant for professionals as they consider adoption and implementation of a MHL intervention. Educators described that schools pushing for mental health and SEL, as well as having buy-in from staff were facilitators to the Go-To Educator Training. Improving buy-in is one of the top-rated implementation strategies for the implementation of new programs and practices in schools (Lyon et al., 2019). Additionally, when creating implementation plans, it may be helpful to consider strategies to address barriers discussed in this study. The top two barriers were educators having to balance training with other responsibilities and the extent of parent involvement needed for SMH. It may be beneficial to integrate MHL interventions into the existing professional development structure for school staff so that it is not another training on their plates and consider if there are other demands on their time that could be lessened. For the barrier of parent involvement, participants described challenges talking to caregivers about youth mental health. One avenue to address this barrier could be the implementation of the optional parent and caregiver seminar aligned with the Go-To Educator Training or other caregiver-focused MHL interventions (e.g., Hurley et al., 2020) in the same community.

Conclusion

The present study investigated the efficacy of the Go-To Educator Training adapted for the context of Wisconsin and delivered virtually in a randomized controlled trial with embedded mixed methods. This study's findings replicate prior evaluations of the Go-To Educator Training which found evidence for improvements in educators' knowledge from pre- to postintervention.

There were not statistically significant findings for stigma or self-efficacy, but this study was underpowered to detect effects for these outcomes based on prior research. Qualitative results provided insight into the extent educators' noticed changes in their knowledge, stigma, self-efficacy, and explored the extent to which educators' perceived their behaviors changing in approximately one month after the training. Educators endorsed that the training was socially valid and were satisfied with the training itself and the virtual delivery methods. Overall, the current study has contributed to a growing area in research and practice focused on increasing the MHL of educators as an avenue to improve educators' abilities to best support their students' mental health.

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Appendix A

Demographic Form

Thank you for participating in this research project. As part of this project, we would like to gather some information about you and your thoughts, beliefs, and experiences. You may refuse to answer any questions you wish. Thank you for your time.

Your First Name: _____ Your Last Name: _____
Today's Date: _____

Select the following that best describes you:
__ Female
__ Male
__ Other

What is your birthdate?
_____ Month
_____ Day
_____ Year

What best describes your ethnicity?
__ Hispanic or Latino __ Not Hispanic or Latino

What best describes your race (mark all that apply)?
__ American Indian or Alaska Native
__ Asian
__ Black or African American
__ Native Hawaiian or Other Pacific Islander
__ White
__ Other_____

Do you have a diagnosed mental health disorder?
__ Yes
__ No
__ Prefer to not respond

School Name: _____

Grade(s) you Currently Teach: _____

Subject you Currently Teach: _____

How many years have you been teaching? _____

What is the highest degree you have earned?
___ College Degree
___ Some Graduate Coursework
___ Master's Degree
___ Doctoral Degree
___ Other Graduate Degree (please specify: _____)

Do you have past experience with a mental health focused professional development (e.g., training, workshop, course)?
___ Yes.
___ No

If yes, do you remember what the workshop was called? _____

Appendix B

Mental Health Literacy Tool for Educators (MHL-ED)

Wei et al. (2019)

For each of the following statements select True, False, or Do Not Know.

Question	True	False	Do Not Know
1. Everyday stress is harmful to people and needs to be avoided as much as possible			
2. About 70% of all mental disorders can be diagnosed prior to age 25 years.			
3. School stress is one of the well-established risk factors for youth suicide.			
4. Medication treatments for mental disorders frequently cause addiction.			
5. Poverty and other social determinants of health are well established causes of most mental disorders.			
6. The brain function of signaling is a method by which individuals learn to interpret the meaning of complex ideas.			
7. Social isolation if combined with lack of motivation is usually a sign of academic difficulties and not a sign of a possible mental disorder.			
8. Mental disorders arise as a result of perturbations of usual brain function.			
9. A hallucination occurs when a person believes in something that is not real.			
10. Schizophrenia affects about 1% of the population, with males and females about equally represented.			
11. A split personality is a sign of schizophrenia.			
12. Every person's mood will change over time, even in the absence of an external event.			
13. The *Kutcher Adolescent Depression Scale (KADS)* is a useful tool in the assessment and diagnosis of depression in adolescents.			
14. The *Tool for Assessment of Suicide Risk (TRS-A)* can be used to help predict which teenagers will die by suicide.			
15. Adolescent depression can be effectively treated with some Selective Serotonin Reuptake Inhibitors (SSRI) medications.			
16. Post Traumatic Stress Disorder is one of the two most common types of anxiety disorders during adolescence.			
17. Because it is a chemical that decreases anxiety, nicotine abuse may be a consequence of untreated anxiety disorder in young people.			
18. Generalized anxiety disorder usually occurs as a result of a stressful event.			

19. Major Depressive Disorder or alcohol misuse can be a consequence of untreated Social Anxiety Disorder.			
20. The panic attacks of Panic Disorder usually occur at times when the person is in a situation that makes them anxious.			
21. Critical Incident Stress Debriefing is the preferred method for schools in dealing with a tragic even such as suicide.			
22. Craving induced by substance use is primary feature of substance use disorder.			
23. The three domains of ADHD include inattention, hyperactivity, and oppositionality.			
24. Withdrawal from a drug is the defining feature of addiction.			
25. Initial treatment for Obsessive Compulsive Disorder usually lasts 12 weeks before substantial improvement can be expected.			
26. It is useful to assist a young person struggling with psychosis by being a friend and keeping their confidence when necessary.			
27. Young people with Bulimia Nervosa often starve themselves and exercise excessively.			
28. Features of psychosis such as delusions and hallucinations are usually present during a manic episode.			
29. The CLASPP mnemonic is a useful tool to help a student remember a variety of treatments for mental disorders.			
30. A complementary treatment is one that is often applied instead of usual physician recommended interventions.			

Appendix C

GTE Stigma Items

Milin et al. (2015) and Wei et al. (2019)

This section of the survey is designed to find out about your perspective toward each statement. For each of the following statements, please select the answer that you feel best describes your perspective toward the statement.

1. It is easy to tell when someone has a mental health disorder because they usually act in a strange or bizarre way.

Strongly Disagree	Disagree	Disagree a Little	Not Sure	Agree a Little	Agree	Strongly Agree

2. A person with a mental health disorder should not be able to vote in an election.

Strongly Disagree	Disagree	Disagree a Little	Not Sure	Agree a Little	Agree	Strongly Agree

3. Most people with mental health disorders are dangerous and violent

Strongly Disagree	Disagree	Disagree a Little	Not Sure	Agree a Little	Agree	Strongly Agree

4. Most people with a mental health disorder can have a good job and a successful and fulfilling life.

Strongly Disagree	Disagree	Disagree a Little	Not Sure	Agree a Little	Agree	Strongly Agree

5. I would be willing to have a person with a mental health disorder at my school.

Strongly Disagree	Disagree	Disagree a Little	Not Sure	Agree a Little	Agree	Strongly Agree

6. I would be happy to have a person with a mental health disorder become a close friend.

Strongly Disagree	Disagree	Disagree a Little	Not Sure	Agree a Little	Agree	Strongly Agree

7. Mental health disorders are usually a consequence of bad parenting or poor family environments.

Strongly Disagree	Disagree	Disagree a Little	Not Sure	Agree a Little	Agree	Strongly Agree

8. People who have mental health disorders do not get better.

Strongly Disagree	Disagree	Disagree a Little	Not Sure	Agree a Little	Agree	Strongly Agree

Appendix D

Adapted Items from the Attitudes About Child Mental Health Questionnaire

Adapted from Heflinger et al. (2015)

For each of the following statements, please select the answer that you feel best describes your perspective toward the statement. We appreciate your honesty and time completing these questions.

I think that…

1. Many educators would rather not have a child with mental health problems in their classroom.

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

2. Many educators do not want to deal with the parents/caregivers of children who have mental health problems.

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

3. Many educators think less of parents/caregivers of children who have mental health problems

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

4. I would rather not have the parent/caregiver of a child with mental health problems as a co-worker

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

5. It would be difficult for me to accept having a relative whose child has mental health problems

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

6. If I were a parent, I would not want my child to be friends with a child who has mental health problems

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

7. I would rather that relatives who have children with mental health problems not attend family gatherings

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

8. I would think less positively of a child with mental health problems

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

9. I would rather not have a child with mental health problems in my classroom

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

10. I would rather not have a teenager with mental health problems as a volunteer in my classroom

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

11. I would not want a family who has a child with mental health problems going to my school and community activities

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

12. If I were an employer, I would be reluctant to give a teenager with mental health problems a job

Strongly Disagree	Disagree	Disagree a Little	Agree a Little	Agree	Strongly Agree

Appendix E

Training Satisfaction Questionnaire (TSQ)

Adapted from Larsen et al. (1979) and Kratochwill et al. (1991)

Please help us improve by answering some questions about the training you have received. We are interested in your honest opinions, whether they are positive or negative. *Please answer all of the questions*. We also welcome your comments and suggestions. Thank you very much, we appreciate your help.

1. How would you rate the quality of the training you received?	Excellent	Good	Fair	Poor
2. Did you get the kind of training you wanted?	No, definitely not	No, not really	Yes, generally	Yes, definitely
3. To what extent has our training met your needs?	Almost all of my needs have been met	Most of my needs have been met	Only a few of my needs have been met	None of my needs have been met
4. If a friend were in need of similar training, would you recommend our program to them?	No, definitely not	No, I don't think so	Yes, I think so	Yes, definitely
5. How satisfied are you with the amount of training you received?	Quite dissatisfied	Indifferent or mildly dissatisfied	Mostly satisfied	Very satisfied
6. Has the training you received helped you understand youth mental health?	Yes, it helped a great deal	Yes, it helped somewhat	Not, it really didn't help	No, it seemed to make things worse
7. In an overall, general sense, how satisfied are you with the training you received?	Very satisfied	Mostly satisfied	Indifferent or mildly dissatisfied	Quite dissatisfied
8. If you were to seek training again, would you come back to our program?	No, definitely not	No, I don't think so	Yes, I think so	Yes, definitely

Write comments below.

Appendix F

Focus Group and Interview Protocol

Time of Focus Group/Interview: approx. 60 minutes
Date:
Facilitator:
Focus Group Composition (if applicable):

Initial Activities

1. Facilitator welcomes participants and reviews elements of informed consent form (e.g., recording)

Introductions/Overview of Expectations

1. Facilitator introduces themselves.
2. Facilitator provides an overview of confidentiality and that it cannot be guaranteed in a group setting, but will ask participants to respect that the information shared in the session should be kept private.
3. Facilitator reminds participants to not directly identify (or "name names") of people who are not participating in the research. Instead if their answers will include mention of another person who isn't a participant (e.g. student, colleague, etc), they should refer to that person by their relationship to them (e.g. "a student", "one of my fellow teachers", etc.)
4. Facilitator gives overview of Zoom expectations to keep cameras on throughout the session if possible, to simulate an in-person experience and mute microphones when not speaking to minimize background noise. Additionally, the facilitator introduces the private chat option to share perspectives if they have something they want to discuss but not in the large group or do not get to it in the large group due to time constraints.
5. Host changes participants' zoom names to remove identifying information and **begins zoom recording.**

Purpose of the Focus Group

Thank you for taking time to participate in our focus group. The purpose of our meeting today is to discuss your experiences with the Go-To Educator Training and the potential impacts of the training on your lives. The goal of gathering this information is so we can improve the training to be the most useful so we encourage and value honest, constructive feedback. If at any point you think that I might be misunderstanding what you mean, please feel free to correct me so we can make sure to best understand your perspectives.

Introductions

Let's take just a few minutes to introduce ourselves by going around the room and sharing our first names, what your position is, and just for fun, tell us what your favorite food to cook or eat.

Experiences & Perceptions of the Training

To begin, I'd like to ask some questions about your experiences during the training sessions and your perspectives on how the training was delivered.

- Thinking back to your experience during the *Go-To Educator Training*, what was memorable about the training for you?
- What are your perspectives on how acceptable, or relevant, the *Go-To Educator Training* content was for you and your work?
- What are your perspectives on how acceptable the *Go-To Educator Training* virtual delivery approach (e.g., discussions, activities) was for you?
- What do you consider to be strengths of the *Go-To Educator Training*?
- What do you consider to be areas to improve of the *Go-To Educator Training*?
- Is there anything else you'd like to share about your experiences during the *Go-To Educator Training*?

Impacts After Training

Next, I'd like to ask some questions about what resonated with you from the trainings and your experiences in the time since the training sessions.

- In what ways has your knowledge and understanding of youth mental health changed after the *Go-To Educator Training*?
- In what ways has your attitudes or feelings towards youth with mental health disorders changed after the *Go-To Educator Training*?
- In what ways has your confidence in supporting youth with mental health disorders at school changed after the *Go-To Educator Training*?
- How have you changed any of your behaviors to support students' mental health after the *Go-To Educator* training?
- Have you noticed anything getting in the way of being able to apply information from the *Go-To Educator* training more in your lives and work?
- Is there anything else you'd like to share about your experiences after the *Go-To Educator* training?

Conclusion

Those are all of the questions I have. I want to thank you for taking time to share your experiences with us. Now is the time for you to ask me any questions you might have—do you have any questions? Answer any questions participants have. After questions are addressed thank participants for their time.

If you have any follow up information or questions after we leave today, please contact me using the information provided on the informed consent. If you have any notes you would like us to have, please send them in the chat. Thank you again for taking the time to chat with me today.

Appendix G

Intervention Content Fidelity Checklist

The following checklists outline the required content that must be covered across all the sections of the *Go-To Educator Training.*

Section	Required Content	Fidelity: Was the content delivered?		What session?
Introduction	Define mental health literacy	Yes	No	
	Define educators' role as a "Go-To Educator"	Yes	No	
	Clarify terminology	Yes	No	
	Introduce mental health states pyramid	Yes	No	
Causes of mental health and basic epidemiology	State facts on the prevalence of mental health disorders within the context of the classroom	Yes	No	
	Describe the causes of mental health disorders as the interaction between an individual and their environment	Yes	No	
	Describe that mental health disorders are associated with disturbances in brain function	Yes	No	
Roles of Go–To Educators	Highlight school mental health frameworks	Yes	No	
	Introduce the four roles of Go–To Educators	Yes	No	
	Describe how to teach and promote student mental health literacy	Yes	No	
	Define mental health disorder stigma	Yes	No	
	Share stigma myth busting	Yes	No	
	Describe identification keys in the school setting of how to recognize students needing more support	Yes	No	
	Describe school mental health referral processes	Yes	No	
	Share universal support strategies for school mental health	Yes	No	
	Introduce big 5 ways to boost mental health and well-being	Yes	No	
Connecting with Caregivers	Provide communication strategies for caregivers and families	Yes	No	
Treatment and supportive principles	Describe evidence-based treatment	Yes	No	
	Clarify how to support students during treatment	Yes	No	

Section	Required Content	Fidelity: Was the content delivered?		What session?
Overview of common mental health disorders and early identification strategies	Describe stress response	Yes	No	
	Introduce ways to manage stress response	Yes	No	
	Describe generalized anxiety disorder	Yes	No	
	Describe social anxiety disorder	Yes	No	
	Describe panic attacks & panic disorder	Yes	No	
	Describe anxiety disorders treatment	Yes	No	
	Define PTSD	Yes	No	
	Response principles for PTSD	Yes	No	
	Describe school-based response to trauma	Yes	No	
	Describe typical mood fluctuations	Yes	No	
	Describe depression	Yes	No	
	Outline depression treatment	Yes	No	
	Define bipolar disorder	Yes	No	
	Outline bipolar disorder treatment	Yes	No	
	Describe non-suicidal self injury	Yes	No	
	Describe suicidal behaviors	Yes	No	
	Share suicide warning signs	Yes	No	
	Outline suicide prevention, intervention, and postvention	Yes	No	
	Introduce delusions and hallucinations	Yes	No	
	Describe schizophrenia	Yes	No	
	Outline treatment of psychosis	Yes	No	
	Define obsessive compulsive disorder	Yes	No	
	Outline treatment for obsessive compulsive disorder	Yes	No	
	Define bulimia nervosa	Yes	No	
	Define anorexia nervosa	Yes	No	
	Define binge eating disorders	Yes	No	
	Outline treatment of eating disorders	Yes	No	
	Describe teen substance use	Yes	No	
	Outline ways to identify teens struggling with substances	Yes	No	
	Describe school-based substance use prevention and response	Yes	No	
	Define ADHD	Yes	No	
	Outline ADHD treatment	Yes	No	

Conclusion	Reminder of the definition of mental health literacy	Yes	No	
	Reminder of educators' roles as "Go-To Educator"	Yes	No	