TEACHER MENTAL HEALTH SELF-EFFICACY: EVALUATING TEACHER'S PREPAREDNESS AND CAPACITY TOWARD STUDENT MENTAL HEALTH

by

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(Under the Direction of GEORGIA B. CALHOUN)

ABSTRACT

Teachers play an important role in supporting their students across areas of functioning, including mental health and wellbeing. Because of their regular, direct connection to students, teachers have the opportunity to serve as liaisons between students and mental health support. Additionally, they also have the opportunity to address topics relevant to mental health and wellness in their classrooms. As such, this study aimed to examine teacher's felt sense of capacity and preparedness to support student mental health and to explore potential factors that inform this *teacher mental health self-efficacy*, such as teaching environment, administrative support, education and training, and experience. Teacher mental health self-efficacy within this study is defined as a teacher's self-identified belief in their ability to address the social, emotional, and behavioral needs of students, as well as to understand and integrate concepts related to mental health into their classroom. Using a sample population of teachers in the Southeastern United States, the study piloted an adapted measure of teacher mental health self-efficacy and found it to be internally consistent. The study also found relationships between teacher mental health self-efficacy and administrative support, collegial support, access to professional and community resources, education around mental health topics, and professional

development related to mental health. The aim of the study was to explore the impact of these factors on teacher's mental health self-efficacy as a way to direct future research, education, and professional development.

INDEX WORDS: self-efficacy, teacher mental health, teacher self-efficacy, mental health literacy, mental health in schools

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DEDICATION

To kids who need grown-ups who care about mental health. I've got your back.

To Dale, mom, and Ryan – I won't be mad if you don't read this, it's long. I love you!

And to my dog, Emelia. You're perfect.

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To my committee, my peers and faculty of the Counseling Psychology PhD program, the Mary Frances Early College of Education, and every single Georgia teacher who cares so deeply for their students' wellbeing:

I can no other answer make but thanks, and thanks, and ever thanks.

(Shakespeare's *Twelfth Night*, Act III, Scene 3)

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CHAPTER 1

INTRODUCTION

Statement of the Problem

Mental health disorders and socioemotional concerns are among the most common health issues faced by children and adolescents in the United States. According to the Child Mind Institute's most recent *Children's Mental Health Report* (2016), one in five children suffers from a mental health or learning disorder, and approximately 80% of chronic mental health concerns begin before age 14 (Child Mind Institute, 2016). These mental health concerns range from common conditions such as depression, anxiety, and behavior problems to less prevalent and often more severe conditions including conduct disorders, schizophrenia, and autism (Child Mind Institute, 2016; Kessler et al., 2007; U.S. Department of Health and Human Services, 2019). The most recent data available from the United States Centers for Disease Control indicates that 17.4% children ages 2-8 years old were diagnosed with a mental, behavioral, or developmental disorder (CDC, 2018; Cree et al., 2018). The same report identified that 7.1% of children ages 3-17 have diagnosed anxiety, and 3.2% of children of the same age range have diagnosed depression, with a reported 3-5% increase in diagnoses since 2012, particularly in children ages 6-17 (CDC, 2018; Cree et al., 2016).

The negative impact of mental health concerns, whether diagnosed or observed, can put children and adolescents at risk for poor outcomes across functioning, including school, family, environmental, and community contexts. Mental health concerns during these critical stages of development are associated with lower academic achievement and school engagement, behavior

problems at home and school, difficulties in peer relationships, decreased school attendance and potentially dropout (Adelman & Taylor, 2006; ChildMind Institute, 2016; Raver & Knitzer, 2002; Spernak, Schottenbauer, Ramey, & Ramey, 2006; Wang, Haertel, & Walberg, 1997). Social, emotional, and behavioral concerns in childhood are also considered comorbid with increased risk of suicide and self-harm, interpersonal violence, violent crime, and substance abuse problems that may continue into adulthood (Child Mind Institute, 2016; Kessler et al., 2007; Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002; Patel, Flisher, Hetrick, & McGorry, 2007; Patton, 2002).

There are currently numerous and evolving avenues to support the mental health and wellbeing of children and adolescents, including evidence-based psychotherapy practices and psychopharmacology that support young people on an individual level. However, psychology researchers and mental health clinicians across the globe note that individual treatment alone is "insufficient to slow the growth of mental health problems and reduce associated impacts for individuals, families and communities" (De George-Walker, 2010, p. 19; HHS, 2018). The United States Department of Health and Human Services (HHS, 2018) has urged providing "sophisticated, comprehensive services" to support the mental health needs of children and adolescents, including school-based and community-based supports that create a holistic approach to mental health care (HHS, 2018, no page).

The Child Mind Institute's 2016 report builds upon the HHS's call towards a holistic approach to child and adolescent mental health care that includes school settings, noting that school systems and school employees (teachers, social support services, administrators, and staff) present an important opportunity for early intervention and recognition of mental health needs. Because of their proximity to students, teachers and other school staff are primed to

observe and identify signs of mental health concerns (Askel-Williams, Lawson, & Slee, 2009; Askel-Williams & Lawson, 2013; Frauenholtz, Williford, & Mendenhall, 2015; Graham, Phelps, Maddison, & Fitzgerald, 2011; Rowling, 2008). School settings also offer opportunities to integrate mental health promotion and educational programming *en masse* (Graham, Phelps, Maddison, & Fitzgerald, 2011; Greenberg, 2010; Hornby & Atkinson, 2003; Kutash, Duchnowski, & Lynn, 2006; Rowling, 2009). The body of literature continues to grow regarding the impact of mental health education and social and emotional learning programming on the overall health, mental wellbeing, social-emotional skills, as well as learning and academic outcomes, though much of this work has been done outside of the United States in countries such as Australia and the United Kingdom (Askel-Williams, Lawson, & Slee, 2009; Graham, Phelps, Maddison, & Fitzgerald, 2011; Greenberg, 2010; Greenberg et al., 2003; Payton et al., 2008; Wells, Barlow, & Stewart-Brown, 2003; Zins, Bloodworth, Weissberg, & Walberg, 2004; Zins, Weissberg, Wang, & Walberg, 2004).

Though countries such as Australia and the United Kingdom have further developed this integration of mental health education in schools and have further considered the role of teachers (Donovan et al., 2006; Kidger, Gunnell, Biddle, Campbell, & Donovan, 2009; Marlow et al., 2015; Vincent, 2005), teachers in the United States report significant care and concern for the mental health and wellbeing of their students, particularly those who are struggling (Frauenholtz, Williford, & Mendenhall, 2015). It has been noted that in some cases, teachers are expected to be the first line of defense for early identification of mental health concerns among at-risk students, and often take on responsibilities such as consultation and referral to school counselors and school psychologists, the creation of strategies, and integration of social and emotional concepts

in their classroom management styles (Heller et al., 2011; Hornby & Atkinson, 2003; Inlow, 1963; Marlow et al., 2015; Mellin et al., 2017; Wood, 2011).

Teacher's views about their roles and responsibilities regarding student mental health and wellbeing are highly varied. In qualitative and quantitative studies, some teachers report that supporting student social, emotional, and behavioral wellbeing is part of their job responsibilities and typically positively correlated with other academic outcomes (Askell-Williams, Lawson, & Slee, 2009; Graham, Phelps, Maddison, & Fitzgerald, 2011; Mazzer & Rickwood, 2015; Shelemy, Harvey, and Waite, 2019). Conversely, other teachers oppose these roles as detractors to the academic goals of their classrooms and often consider them to be the responsibility of school counselors, school psychologists, or even families. (Gott, 2003; Kidger, Gunnell et al., 2009; Lohrmann, Forman, Martin, & Palmieri, 2008; Shelemy, Harvey, and Waite, 2019).

In addition to teachers' perceptions of their roles and responsibilities, research on this topic indicates that teachers struggle to identify potential social, emotional, and behavioral concerns (Armstrong, Price, & Crowley, 2015; von der Embse et al., 2018), underutilize in school and community referral sources and consultation (Heller et al., 2011; Mellin et al., 2017) and often do not have adequate knowledge of mental health concepts (Askell-Williams et al., 2009; Cohall et al., 2007; Hornby & Atkinson, 2003; Koller et al., 2004; Moor et al., 2007; Roeser & Midgley, 1997; Rothi, Leavey, & Best, 2008b; Sawyer et al., 2010; Walter, Gouze, & Lim, 2006).

A number of influential environmental variables have been proposed regarding teachers' attitudes and readiness to support the social, emotional, and behavioral wellbeing of their students. Some of these factors include limited time and competing demands of instruction, lack of resources, perceived lack of administrative and collegial support, and level of training around

mental health concepts and interventions (Carr, Wei, Kutcher, & Heffernan, 2018; Hahn, Noland, Rayens, & Christie, 2002; Koller & Bertel, 2006; Han & Weiss, 2005; Jennings & Greenberg, 2009; Rowling, 2009; Whitley & Gooderham, 2016). Individual and internal variables may also influence teachers' attitudes and readiness in this area, including self-care and wellness, burnout, and teacher self-efficacy (Askell-Williams et al., 2009; Tschannen-Moran & Hoy, 1998).

Teacher self-efficacy has taken the spotlight in educational research since the 1970's, with a wide range of studies indicating that self-efficacy is predictive of teacher attitudes, behavior, and performance, as well as student achievement (Bandura, 1977b; 1993; 2006; Tschannen-Moran & McMaster, 2009; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998; Usher & Pajares, 2008). Teacher self-efficacy, or "teachers' judgments about their abilities to promote students' learning," (Hoy & Spero, 2005, p. 343) has also been preliminarily associated with an increase in positive teacher attitudes regarding supporting student wellbeing (Askell-Williams, 2005). These concepts have encouraged research in the areas of training and professional development for teachers on mental health concepts (Carr, Wei, Kutcher, & Heffernan, 2018; Long et al., 2018; Koller & Bertel, 2006; Wei, Carr, Alaffe, and Kutcher, 2019) and teacher well-being (Askell-Williams, 2005).

Though up to now most studies attempting to quantitatively measure teacher self-efficacy broadly cite questionable measurement validity, the construct has received significant attention across a number of teaching domains including student achievement (Tschannen-Moran & Barr, 2004), classroom creativity and openness to change (Cayirdag, 2016; Tschannen-Moran & McMaster, 2009), changes between early and later years of teaching (Hoy & Spero, 2005), and stress responses and burnout (Friedman, 1992; Skaalvik & Skaalvik, 2007). One of the domains

that has not yet been explored fully, particularly in the United States, is that of teacher's felt sense of preparedness and confidence in their ability to address the social, emotional, and mental health needs of their students. This study will explore these concepts further with the hope of adding to the small but growing body of literature on this topic.

Purpose

The primary purpose of this study was to examine teacher's felt sense of capacity and preparedness to support student mental health and to explore potential factors that inform this *teacher mental health self-efficacy*, such as teaching environment, administrative support, education and training, and experience. Teacher mental health self-efficacy within this study is defined as a teacher's self-identified belief in their ability to address the social, emotional, and behavioral needs of students, as well as to understand and integrate concepts related to mental health into their classroom.

As identified by Kim (2019), it is imperative that future research directions in the field of counseling psychology include a focus in child and adolescent development and wellbeing. Work from counseling psychologists supports this need (Walsh & Galassi, 2002; Walsh, Galassi, Murphy, & Park, 2002), there is little-to-no contemporary literature within the field over the past ten years. Romano and Kachgal (2004) cite collaborations between counseling psychologists and school support staff such as school counselors and school psychologists as an underutilized partnership despite the fields being interconnected and supportive of one another theoretically. Whiston (2004) further exerts that the common denominators between counseling psychologists and school-based counselors and psychologists are counseling and prevention, both of which can be provided collaboratively to support teachers and students. Because school-aged youth are exposed to teachers most days of the week in controlled classroom environments, teachers are

key figures in supporting students' social, emotional, and behavioral concerns (ChildMind Institute, 2016; Frauenholtz, Williford, & Mendenhall, 2015). As a result, in order to support student mental health, teacher's mental health self-efficacy (as well as teacher well-being) should also be considered. The goal of this study is to increase our knowledge of teacher's self-reported mental health self-efficacy and its subjective antecedents as a way to gain insight into their present thoughts, feelings, and behaviors around mental health in the classroom. In doing so, we gain the opportunity to develop further educational models to support teachers in this area and increase advocacy and understanding around student and teacher mental health.

Research Statement

The current study aimed to examine whether teachers in a region of the Southeastern United States feel prepared and able to effectively support student mental health. The study examined how subjective factors including school setting, grade-level or subjects taught, experience, and administrative support relate to teacher's self-reported mental health self-efficacy. The study also explored level of teacher education and training regarding mental health concepts as it relates to preparedness to address student mental health concerns. Additionally, an adapted measure of teacher self-efficacy which focuses on addressing student mental health needs will be examined for internal consistency for future study. Specifically, we aimed to explore the impact of these factors on teacher's mental health self-efficacy as a way to direct future research, education, and professional development.

Delimitations

Due to the pilot nature of this study, a number of parameters were determined as a way to begin to gain a preliminary understanding around the concept of teacher mental health self-efficacy. The measure contained within the survey was adapted with permission from the

Teacher Sense of Self-Efficacy Scale (TSES, Tschannen-Moran & Hoy, 2001) and because of this has not been analyzed in terms of measurement validity. Additionally, the survey including the adapted measure and teaching demographic questions will be sent only to teachers within a limited geographic range (the state of Georgia in the United States). Any teacher within the state of Georgia was able to complete the survey, regardless of background, geographic location within the state, years of experience, school environment, grade-level taught, training background, or licensure. The survey was available for a limited time period of one month and had no capped number of participants, resulting in 122 responses and 102 completed responses reflected in the analysis. These controlled parameters served as a starting point for collecting data on this topic, with the hope of further expanding data collection with positive results.

Definition of Terms

Self-efficacy: The belief in one's capabilities to organize and execute the courses of action required to produce given attainments.

Teacher self-efficacy: teacher's belief in [their] capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context.

Mental health literacy: understanding how to obtain and maintain positive mental health; understanding mental health problems and their treatments; decreasing stigma related to mental health problems; and, enhancing help-seeking efficacy.

Social emotional learning: process through which children and adults understand and. manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain. positive relationships and make responsible decisions.

Teacher mental health self-efficacy: teacher's felt sense of preparedness and confidence in their capability to support the social, emotional, and behavioral wellbeing of their students.

Research Questions

This study examined the preparedness and abilities of teachers in effectively supporting student mental health. Appropriate statistical methods were used to determine the associations between factors such as school setting, grade-level or subjects taught, experience, administrative support, and teacher education on teacher's mental health self-efficacy. The following research questions are based on the literature regarding the role of teachers in supporting student mental health and teacher self-efficacy.

Research Question 1

To what extent do teachers feel prepared and able to support student mental health?

Null Hypothesis I: There is no variance among teachers in level of preparedness or ability to support student mental health.

Research Question 2:

How does teacher's mental health self-efficacy vary based on number of years teaching, level of education, school resources, gender, race, and administrative or collegial support?

Null Hypothesis II: These factors have no impact on teacher mental health self-efficacy.

Research Question 3

Is there a relationship between teacher education about mental health and level of preparedness to address student mental health?

Null Hypothesis III: Teacher education on mental health does not impact level of preparedness to address student mental health.

CHAPTER 2

REVIEW OF RELATED RESEARCH

Introduction

In this chapter, the literature is reviewed in relation to the origins of self-efficacy in social learning theory and social cognitive theory and the resulting models of teacher self-efficacy. The associated findings of these various models and their impact on classroom environment are also examined. School-based mental health initiatives and the role of teachers within these models are explored as a foundation for understanding the role of teachers in supporting students' social, emotional, and behavioral wellbeing. Evidence is then reviewed regarding the domain-specific conceptualization of teacher mental health self-efficacy.

Theoretical Framework

The construct of self-efficacy garnered attention in the field of educational psychology beginning in the 1970s as an expansion of the work of Rotter (1954; 1966) focusing on the internal and external reinforcement of behaviors. Educational psychologist Bandura (1977a, 1977b) expanded on this idea, proposing that people exhibit more control based upon their beliefs as a reinforcement for behavior. Bandura (1977a, 1977b) claimed that people make judgements based on four sources of information, all of which researchers have used for decades to study specific domains of self-efficacy, including that of teachers.

Social Learning Theory

Social learning theory was born out of two psychological trends of the 1960s: studying the impact of reinforcement and cognition related to behavior on behavior itself. Rotter (1954)

assumed that personality is formed by an interaction between a person and their meaningful environment, allowing the personality to change based on experiences. Rotter's (1954, 1966) work on social learning theory identified four variables he believed were necessary in order to make predictions about human behavior: behavior potential, expectancy, reinforcement value, and psychological situation (Rotter, 1954). Behavior potential refers to the likelihood of a behavior being performed. These behaviors include actions as well as psychological reactions such as thoughts, emotions, and defense mechanisms. Expectancy is defined as the probability of reinforcement on a chosen behavior. Rotter (1954) acknowledged an element of subjectivity in this variable as determined by an individual's beliefs and point of view. As noted by Rotter (1954), an individual's expectation is more important for predicting behavior than the probability of a chosen behavior from an expected reinforcement. Reinforcement value refers to the preference for a given reinforcer. Finally, psychological situation refers to the idea that different people interpret the same situation differently. Though Rotter (1954) does not factor psychological situation into direct behavioral prediction, it is noted as important to consider the factor of subjective interpretation as meaningful and important to action. These four components became a foundational lens through which many psychological needs could be addressed.

Locus of control

Rotter's (1954; 1966; 1970) assertion that individuals have a generalized control in the reinforcement of their own behavior developed into one of his best-known concepts, that of locus of control. Locus of control considers an individual's belief that they have control over the situations and experiences that impact their life. When an individual experiences an outcome and believes it to be the result of outside influences, this is considered an external locus of control (Rotter, 1996; 1970). The individual may then formulate a belief that occurrences are

unpredictable, out of their control, or are unrelated to their actions. Those with external locus of control may believe that environmental factors determine the circumstances of their life and that it is unlikely that these circumstances are related to their own efforts (Rotter, 1966). Individuals with a strong internal locus of control maintain that their actions control occurrences in their life rather than external forces. These individuals may believe that they have the ability to control outcomes and are often more likely to take responsibility over blaming external factors. The internal-versus-external locus of control factor relates to the degree to which an individual attributes a reinforcement to their actions (Rotter, 1966).

Social Cognitive Theory

Rotter's (1954, 1966, 1970) work provided the foundation for further study of behavior patterns as a result of internal and external control and reinforcement, though this research maintained a focus primarily on expected outcomes and individual beliefs as they relate to actions. Bandura (1977a; 1997b; 1986) furthered Rotter's work in his hypothesis that some individuals operate mainly under external locus of control beliefs while others operate primarily under internal locus of control beliefs. Bandura's (1977a, 1977b; 1986) social cognitive theory proposes that the interaction between an individual's behavior, personal beliefs and capabilities, and environment work together to influence control. He determined that an outcome is not based on a specific behavior or the resulting reinforcement, but the reciprocal interaction of personal factors, behavior, and environment that influences an individual's belief that they can perform a particular action or behavior – known as self-efficacy (Bandura 1977a, 1977b, 1986, 1997).

Self-Efficacy

Bandura's (1977a; 1977b; 1986) self-efficacy is described as "belief in one's capabilities to organize and execute the courses of action required to produce given attainments" (Badura,

1997, p. 3). In Bandura's view, self-efficacy is the key component of human agency within social cognitive theory that "operates in concert with other determinants in the theory to govern human thought, motivation, and action" (Bandura, 1997, p. 34). Self-efficacy is a belief about capability, not actual skills, though both are required for effective functioning (de George-Walker, 2010). Bandura asserts that self-beliefs are the most critical factor for personal agency, the exercise of self-control, and attainment (1977b, 1997). Bandura identified that an individual's belief that they can accomplish a task does not necessarily make it true, but a lack of belief in personal capability will lead to not attempting to accomplish the task at all (Bandura, 1997). Four jointly operating processes – cognitive, motivational, affective, and selection – are Bandura's proposed mediators between knowledge and skills, human behavior, motivation, persistence, and performance in many areas of functioning (Bandura, 1997).

Bandura asserts that self-efficacy beliefs vary in strength and are sensitive to task demands (Bandura, 1997). He posited that self-efficacy beliefs are not necessarily uniform across situations or tasks, and they can vary along dimensions including perceived degree of accuracy, effort, regularity, self-regulation, or productivity (Bandura, 1997; de George-Walker, 2010). Self-efficacy beliefs are also variable in relationship to an individual's belief in their capabilities. That is, the stronger the self-efficacy, the more persistent the effort, leading to an increased likelihood of better performance (Bandura, 1997). Bandura believed that self-efficacy beliefs are at their most malleable and adaptable in early learning stages, and that they are resilient over time once established, though these established beliefs can change at the influence of intervening experiences (Bandura, 1997).

Though the term and concept of self-efficacy are well-used in psychological and developmental literature, there can be a confusion with other constructs of self-concept or self-

perception such as self-esteem and self-worth (Bandura, 1997; Pajares, 1997). Though these concepts share similarities, self-efficacy is distinct from these other constructs in that it focuses on an individual's perception regarding their capabilities rather than their actual skill (Tschannen-Moran et al., 1998), has a future orientation, is dynamic in nature (Hoy & Spero, 2005; Pajares, 1997), and incorporates reflection as a means of altering thinking and behavior (Bandura, 1997; Pajares, 1996). Bandura (1986) also notes that self-efficacy and outcome expectancy are often considered analogous as forms of expectancy belief, asserting that though they are correlated, they are two different constructs. While outcome expectancy is a belief about the consequences a behavior will produce, self-efficacy focuses on the belief of an individual about their ability to perform behaviors that will result in outcomes (Bandura, 1997). He also notes that self-efficacy beliefs precede outcome expectations though this has been met with criticism (Eastman & Marziller, 1984). This criticism led Bandura to further address the correlation of these two constructs, considering that behavior is best predicted by considering the influence of both (Bandura, 1997).

The breadth and depth of Bandura's research on self-efficacy and social cognitive theory allowed for continued clarification of the construct and its role in behavior. This continued examination allowed for a greater understanding of the factors that influence, mediate, and moderate self-efficacy.

Sources of Self-Efficacy

Bandura (1997) determined that four sources of information influence self-efficacy beliefs: mastery experiences, vicarious experiences, verbal persuasion, and physiological reactions.

Mastery Experiences

Mastery experiences, also called performance accomplishments (Bandura 1977a), are noted as one of the most powerful sources of efficacy information because "successes raise mastery expectations; repeated failures lower them, particularly if the mishaps occur early in the course of events" (Bandura, 1977a, p. 195). Bandura (1977a) noted that repeated successful attempts at mastery lead to increased self-efficacy as well as decrease the negative impact of occasional failures. Additionally, the experience of failure that is overcome by perceived success can strengthen persistence, motivation, and effort (Bandura, 1977a). Mastery experiences that increase self-efficacy in one area may generalize to other situations; this is most predictable for situations that are similar in some way to the original mastery situation (Bandura, 1977a; Bandura, Blanchard, & Ritter, 1969). There are a number of factors that influence the impact of a mastery experience, including one's pre-existing self-concept, self-monitoring, past experiences, the context of a task, and modeling from others (Labone, 2004).

Vicarious Experiences

Personal mastery experiences alone are not enough be the sole source of efficacy information. Bandura (1977a) posited that many of an individual's expectations are derived from the experiences of others. Vicarious experiences rely on inferences from social comparison, which Bandura (1977a) noted is a "less dependable source of information about one's capabilities" (p. 197) though impact still occurs. An observed behavior modeled with clear outcomes leads to more efficacy information (Bandura 1977a). Additionally, observation of modeled activities that are met with success produce more behavioral improvements in the observers than modeled activities met with no evident consequences (failure or otherwise) (Kazdin, 1974). As a result, those who take on mentorship and training roles are noted as highly

influential over the self-efficacy of their trainees as it relates to their specific topics (Bandura, 1986).

Verbal Persuasion

Verbal persuasion, sometimes referred to as social persuasion (Bandura, 1977a), is the verbal recognition for a task from a supervisor or peer (Bandura 1986; 1997). Bandura asserts that verbal persuasion alone is limited as a means of creating self-efficacy, but that it may add to an increase in self-efficacy during a corrective experience (Bandura 1977a). That is, when an individual is told by someone of higher status (such as a supervisor) or someone in a similar ranking (such as a co-worker) that they are capable of mastering a difficult situation and are given resources to support their mastery, they are more likely to give greater effort to their achievement of a task and experience success (Bandura, 1977a). Bandura (1977a) added that in cases where verbal persuasion is given but resources are not, failures often occur that discredit the persuaders and undermine the individual's self-efficacy. Therefore, verbal persuasion has both interactive and independent effects on self-efficacy (Bandura, 1977a).

Physiological Arousal

Physiological arousal levels aid in an individual's judgment of anxiety levels and vulnerability to stress (Bandura, 1977a). Strong emotions regarding a task can impact an individual's anticipation of success or failure before, during, and after attempting a task (Bandura, 1986). Lower levels of arousal are associated with increased success in task preparation, execution, and completion, while higher levels of arousal such as fear, worry, or nervousness yield opposite results. This can also be the case when an individual anticipates fear or worry about an impending task or situation (Bandura, 1977a). Physiological responses such as sweat, fatigue, vocal changes, or other nervous system responses may also impede performance,

and as a result impact self-efficacy (Bandura, 1986; 1997). Diminished physiological arousal can also impact self-efficacy in that it may lead to avoidant behavior (Bandura, 1977a). Thus, some level of physiological arousal may be useful in areas such as motivation and attention, but too much or too little may have adverse consequences (Bandura, 1977a).

Teacher Self-Efficacy

Bandura's (1977a, 1977b, 1987, 1997) social cognitive and self-efficacy theories have led to a growing body of literature on these constructs in numerous contexts and fields (Schunk & Pajares, 2009). The consideration of the self-efficacy of teachers has been called an "elusive construct" (Tschannen-Moran & Hoy, 2001, p. 783) because of its depth and breadth, as well as its complex definition and diverse measurement over the past forty years.

History and Measure

Rotter's Locus of Control

Tschannen-Moran, Woolfolk-Hoy, & Hoy (1998) compiled a comprehensive review of the history of teacher self-efficacy, explaining the emergence of the construct out of a 1970's research study conducted by the RAND Corporation. The RAND study used Rotter (1966) as their theoretical base, using two items to measure "the extent to which teachers believed that they could control the reinforcement of their actions" (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998, p. 202). The two items in the study reflected the two major themes of preliminary teacher self-efficacy research: the power of external factors relative to teacher influence and the personal belief in one's skills, expertise, and knowledge to support student learning. According to the hypothesis of this study, teachers with higher efficacy believe they have influence over student performance, while teachers with lower efficacy believe that external factors have more influence over student performance (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). The

RAND studies reported a significant relationship between teacher efficacy and student achievement in reading (Armor et al., 1976 cited in Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). This influenced the expansion of measures of teacher efficacy beyond the two-item RAND measure, later examining the construct through the lens of Rotter (1966) or Bandura (1977a, 1977b) using more comprehensive questionnaires.

A number of researchers furthered the conceptualization of teacher efficacy using Rotter's (1966) locus of control theory as their foundation (Ashton et al., 1982; Guskey, 1981; Rose & Medway, 1981). The Teacher Locus of Control (TLC) measure asked teachers to assign responsibility for student success or failure based on internal teacher factors or external factors using 28 questions. This study revealed a weak but significant relationship to the original RAND studies with regard to teachers' felt sense of responsibility toward their students' success (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). The same year as the TLC measure, Guskey (1981) developed an expanded 30-item measure examining Responsibility for Student Achievement (RSA). This study also examined the two factors of teachers' internal control and external control as they relate to student success and failure. This study found significant positive correlations between teacher efficacy and responsibility for student success and failure, as well as an overall responsibility felt by teachers (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). The final major work using locus of control theory as its base was the Webb Efficacy Scale (WES, Ashton et al., 1982). The WES attempted to extend the measure of teacher efficacy to also examine social desirability factors that may influence teacher responses on a measure of their self-efficacy. Their study found that teachers with higher scores on the WES reported less negative affect in their teaching style (Ashton et al., 1982 cited in Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998).

Bandura's Social Cognitive Theory and Self-Efficacy

While one strand of research grew out of the work of Rotter (1966), a second emerged out of the work of Bandura's (1977a, 1977b) social cognitive theory and his definition of self-efficacy. Bandura's (1977a) definition of self-efficacy was used as the groundwork for numerous studies focusing on the level of competence a teacher believes they will display in a given situation (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). The first study to examine teacher self-efficacy through the lens of Bandura (1977a; 1977b) was the Gibson and Dembo measure (Gibson & Dembo, 1984). This 30-item measure revealed two factors, personal teaching efficacy (PTE) and general teaching efficacy (GTE) that the researchers believed fully captured teachers' outcome expectancy related to their classroom (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). The study predicted that teachers with high GTE and PTE would have greater persistence and greater academic focus in the classroom, as well as have higher expectations on the level of influence they had on their students (Gibson & Dembo, 1984 cited in Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). Despite its general connection with the construct of teacher self-efficacy, inconsistencies have been noted in this measure in efforts to replicate the original study (Woolfolk & Hoy, 1990). Consequently, a shortened 16-item version was developed by Soodak & Podel (1993) and a 10-item version was developed by Woolfolk & Hoy (1990). Both shortened measures revealed stronger reliabilities but urged for further research regarding specific factors related to teacher self-efficacy such as teacher behavior and student outcomes (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). Since its development in 1984, the Gibson & Dembo measure has been reconfigured to focus on specific content areas such as science (Riggs & Enochs, 1999), classroom management (Emmer & Hickman, 1990), and special education (Coladarci & Bredon, 1997).

Simultaneous to the development and reconfiguration of the Gibson & Dembo (1984) instrument, a number of other studies attempted to measure teacher self-efficacy in various forms. Ashton, Buhr, and Crocker (1984) examined teacher self-efficacy as a context-specific construct, developing a series of vignettes called the Ashton Vignettes which asked teachers to make judgments as to the cause involved in a teaching scenario (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). Teachers completing the instrument were asked how effectively they felt they would perform in the given situation, revealing differences in types of teachers (classroom teachers, student teachers, and college-level) (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998).

Diverse results from this study and others encouraged Bandura (1997) to examine his own construct and develop the Teacher Self-Efficacy Scale, a 30-item instrument with seven subscales: efficacy to influence decision-making, efficacy to influence school resources, instructional efficacy, disciplinary efficacy, efficacy to enlist parental involvement, efficacy to enlist community involvement, and efficacy to create a positive school climate (Bandura, 1997; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). This measure was the first using social cognitive theory to provide a multifaceted conceptualization of teachers' self-efficacy beliefs across a number of factors. Bandura's (1997) efforts included an attempt at increasing specificity by examining teachers' assessments of their capabilities across a wide range of tasks in hopes of creating a more generalizable measure. Tschannen-Moran, Woolfolk-Hoy, & Hoy (1998) and Tschannen-Moran & Hoy (2001) critiqued this measure's extreme level of specificity, noting that in his attempts to increase external validity by adding more specific items to his questionnaire, Bandura (1997) had created too high a level of specificity and decreased the measures practical relevance. Despite critical evaluation, existence of Bandura's (1997) measure paved the way for the development of the most statistically significant measure of teacher self-

efficacy, the Teacher Sense of Self-Efficacy Scale (TSES, Tschannen-Moran & Hoy, 2001). Originally called the Ohio State Teacher Efficacy Scale (OSTES), this measure and its accompanying framework suggest that a valid measure of teacher efficacy "must assess both personal competence and an analysis of the task in terms of the resources and constraints in particular teaching contexts" (Tschannen-Moran & Hoy, 2001, p. 795). The original OSTES instrument was developed based on Bandura's measure, but with an "expanded list of teacher capabilities" (Tschannen-Moran & Hoy, 2001, p. 796). The researchers examined the items using the help of teacher educators as a way to identify a valid representation of the tasks and elements of teaching, generating 52 items based on Bandura's (1997) scale and their own experiences that became a 24-item long form and 12-item short form instrument (Tschannen-Moran & Hoy, 2001). The measure was examined in a number of simultaneous studies to determine its reliability and validity in its short and long formats, revealing reasonable reliability and validity in both forms, as well as positive correlations to other measures of teacher efficacy (Tschannen-Moran & Hoy, 2001). These studies revealed three major factors within teacher efficacy: efficacy for student engagement, efficacy for instructional strategies, and efficacy for classroom management (Tschannen-Moran & Hoy, 2001). Today, the Teacher Sense of Self-Efficacy Scale (TSSES) seems to be the most widely used measure of teacher self-efficacy due to the expansive attention paid to its reliability, validity, and generalizability in the late 1990s and early 2000s (Klassen et al., 2011; Tschannen-Moran & Hoy, 2001). This measure has experienced further adaptation and will likely continue to change over time as calls for more specific directions in teacher self-efficacy research continue (Klassen et al., 2011).

Meaning and Development of Teacher Self-Efficacy

Whether measures of teacher self-efficacy developed out of the work of Rotter (1966) or Bandura (1977a), they seem to share an overall definition of the construct (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). Teacher self-efficacy is the "teacher's belief in [their] capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998, p. 233). This definition encompasses an understanding that both self-perception of teaching capabilities and beliefs about task requirements contribute to teacher efficacy and the consequences of certain efficacy beliefs. The definition and underpinnings hypothesized by Tschannen-Moran, Woolfolk-Hoy, & Hoy (1998) offer the clearest conceptualization by encouraging a consideration of internal resources, internal deficits, external resources, and external constraints on the teacher, and as a result on the students. Teacher self-efficacy is developmental in nature, typically being built as a result of a number of experiences during training, early experience, and even throughout ones teaching career (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998).

Using the frame of Bandura (1977a, 1997), Tschannen-Moran and McMaster (2009) identified four sources of teacher self-efficacy, which are the foundation upon which teachers make judgements of their self-efficacy based on:

> …verbal encouragement from important others…(verbal persuasion), the success or failure of other teachers who serve as models (vicarious experiences), perceptions of past experiences of teaching (mastery experiences) and the level of emotional and physiological arousal experienced as they anticipate and practice teaching. (p. 229)

Their work posed that these sources are context-specific and formed around Environment as well as task (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). Teacher self-efficacy, as in Bandura's

(1977a, 1997) original frame, is viewed as a motivational construct that influences the effort and persistence of teachers, thus affecting performance and becoming a source of new efficacy information (Tschannen-Moran & McMaster, 2009). This cyclical experience of behavior influencing teacher's self-efficacy is also seen as stable over time. Tschannen-Moran & McMaster (2009) considered the work of Bandura (1977a, 1997) as well as educational psychology research on similar topics (CITATIONS) in their conceptualization of the sources and their impact.

Verbal Persuasion

Verbal persuasion, as in Bandura's (1977a) original definition, involves input from outside influences give to an individual that have potential influence on thoughts, feelings, and behaviors. In the context of teachers, these outside individuals could be colleagues, supervisors, or administrators who serve to strengthen the teacher's belief that they are capable of achieving a desired level of performance or completing a specific task (Tschannen-Moran & McMaster, 2009). Verbal persuasion as an external influence on self-efficacy may be limited in its ability to continuously increase self-efficacy beliefs, but Tschannen-Moran and McMaster (2009) noted that this source has the ability to increase effort on the part of the teacher, thus promoting skill-development that subsequently leads to increased self-efficacy. In school environments, teachers have the opportunity to receive verbal persuasion in a number of forms, including peer support from fellow teachers, insight from administrative staff such as principals, and even professional development (Stein & Wang, 1988). Verbal persuasion from important influences in teacher's workplace environment can provide teachers some necessary encouragement towards achieving goals and strengthening their teaching skills across content areas (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998; Tschannen-Moran & McMaster, 2009)

Vicarious Experiences

Bandura's (1977a) vicarious experiences involve an individual observing another person successfully perform a task or an action that they are contemplating or attempting. Bandura (1997) later noted that because the act of teaching does not have a precise measure of accuracy, teachers often rely on appraising their abilities based on the performances of others because "people actively seek proficient models who demonstrate the competencies to which they aspire" (Tschannen-Moran & McMaster, 2009, p. 230). The model teacher provides a "standard" that helps the observing teacher to set goals. This is particularly efficacious when the model teacher and observer teacher are similar in some ways, such as level of expertise, training, or even cultural background (Tschannen-Moran & McMaster, 2009; Klassen et al., 2011). Model teachers that best reinforce self-efficacy beliefs in observer teachers not only teach effective skills, but also reveal their thought processes about the task demands, with potential influence on the internal and external experiences of observer teachers (Tschannen-Moran & McMaster, 2009).

Mastery Experiences

As in Bandura's (1977a) original concept of self-efficacy, mastery experiences, or an individual's perceived successes, are the most influential source of efficacy information for teachers (Tschannen-Moran & McMaster, 2009). Mastery experiences are particularly salient in the early development of teacher self-efficacy in novice teachers and during pre-service teacher trainings, as noted in Hoy & Spero (2005). Tschannen-Moran & McMaster noted that teachers benefit from successes in their environment that are achieved without much external assistance, as completing a task in this way further reinforces an individual's abilities and skills. Mastery experiences inform the dynamic nature of teacher self-efficacy in that increased proficiency and

effort create new mastery experiences, which in turn have the potential to increase self-efficacy beliefs across individuals.

Physiological and Affective States

Bandura's (1997a) original conceptualization of physiological arousal asserted that individuals rely on their physiological and emotional states for information about their abilities. Level of arousal and somatic responses, such as elevated heart rate, sweating, or respiratory rate, have both positive and negative influences on action and resulting perceptions of self-efficacy (Gregoire, 2003). For teachers, moderate levels of arousal when facing a challenging teaching task can improve performance by increasing attention and energy, and exposure to new and engaging job-relevant material may evoke positive arousal in the form of interest and curiosity (Tschannen-Moran & McMaster, 2009).

Analysis of the Teaching Task

Moving beyond Bandura's (1977a) original sources of efficacy information and into the teaching-specific environment, Tschannen-Moran & McMaster (2009) noted the importance of examining teaching capability through the lens of personal judgment, which includes an assessment of personal teaching competency as well as the assumed requirements of an anticipated tasks. A teacher's assessment of their individual capability is based on an examination of their level of experience, personal strengths and deficits, and potential burnout (Skaalvik & Skaalvik, 2007; Tschannen-Moran & McMaster, 2009) and is influenced by all of the factors noted previously. The assessment of teaching tasks includes the consideration of context-specific influences such as school climate and attitudes, available resources, and student factors including achievement, motivation, as well as systemic and cultural concerns (Hoy & Spero, 2005; Tschannen-Moran & McMaster, 2009; Zee et al., 2016)

Context-Specific Influences

Pre-Service and Novice Teachers

Hoy & Spero (2005) examined the development of teacher efficacy beliefs among teachers who were still in training or in their first year of teaching, noting that this highly researched stage of teaching (or preparing to teach) may be one of the more pivotal for the development of self-efficacy. A study by Hoy & Woolfolk (1990) noted a consistent increase in personal efficacy for teaching during college teacher preparation and student teaching, which has been identified in both the United States and Canada. For teachers in their first year of employment, Corocan (1981) and Weinstein (1988) note "reality shock" related to role remands and expectations that are encountered by beginner teachers (Hoy & Spero, 2005, p. 346). As such, much of the literature on teacher self-efficacy in the early years of teaching ties efficacy beliefs to stress levels, level of commitment to teaching, satisfaction with supportive resources, and preparation (Hoy & Spero, 2005). Limited research also links low teacher self-efficacy to higher rates of burnout among beginner teachers (Hoy & Spero, 2005; Skaalvik & Skaalvik, 2007). Tschannen-Moran, Woolfolk-Hoy & Hoy (1998) noted that novice teachers who had a high sense of efficacy found "greater satisfaction in teaching" (p. 236) and tended to report more optimistic views on their administration, job duties, as well as pay.

Experienced Teachers

As noted by Bandura (1977a, 1997) across his work on self-efficacy, positive changes require "compelling feedback that forcefully disputes the preexisting disbelief in one's capabilities" (Bandura, 1997, p. 82). As such, teachers who have long-held roles in educational institutions are less likely to be impacted by small successes that produce mastery experiences, modeled behavior by trainers, or new teaching methods (Ross, 1994). This does not mean that

experienced teachers are disinterested in skill-building or that they report lower self-efficacy. In fact, Tschannen-Moran, Woolfolk-Hoy, & Hoy (1998) noted that reported self-efficacy among experienced teachers "appear[s] to be quite stable" (p. 236). The same study reported that experienced teachers' self-efficacy beliefs are most often impacted by rising standards in education which guide their beliefs about the effectiveness of their teaching strategies (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). Research by Johnson et al. (2017) suggested that experienced teachers' self-efficacy is one important factor linked to their openness to adopting new practices, such as curriculum changes or new educational strategies.

School Contexts

Students. Teacher self-efficacy has been noted to vary across a number of contexts that are specific to the classroom environment of an individual teacher. Work by Raudenbush et al.(1992) suggested that teacher self-efficacy may be varied across subjects taught, noting an increase in reported self-efficacy among teachers who taught honors level of Advanced Placement (AP) courses compared to teachers in regular or remedial classrooms. Tschannen-Moran & Barr (2004) noted that the collective perception groups of teachers have about their students' capabilities and achievement may be connected to their beliefs in their own capabilities. A study by Zee et al. (2015) indicated that teacher self-efficacy beliefs are linked to how capable teachers feel in addressing classroom management needs; teachers who feel more capable at managing day-to-day interactions with their students regarding behavior concerns and overall classroom management report higher levels of self-efficacy than those who report feeling overwhelmed by behavior management or student needs.

School Climate. Teacher self-efficacy has bene linked to a number of school-level variables that inform overall school climate, such as administrative support, collegial

interactions, and sense of school community (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). Greater sense of self-efficacy has been noted among teachers who perceive a positive school atmosphere (Moore & Esselman, 1992), a strong focus on academic achievement (Hoy & Woolfolk, 1993) as well as a greater sense of community (Lee et al., 1991). Administrative leadership has also been linked to teacher self-efficacy (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). Hoy & Woolfolk (1993) noted that teachers who felt their principals and administrative staff can positively influence policy have higher levels of self-efficacy. The same is noted among teachers who felt that their principals use their leadership to increase teacher resources and classroom flexibility (Lee et al., 1991). Chester & Beaudin (1996) reported that school location and overall environment may influence self-efficacy; in their study comparing early career teachers in an urban school with students of primarily low socioeconomic status and reportedly smaller budget to an urban school with students of middle-to-upper level socioeconomic status and a bigger budget, they found that teacher's self-efficacy was lower when in the lower income, lower budget school. They also found that teachers reported low retention rates, low salaries, low morale, lack of recognition, and professional isolation in this school compared to the higher income, higher budget school. Overall the availability of quality resources, whether administrators, financial supports, training, or peer supports, appear to have a direct impact on teacher self-efficacy.

Current State of Teacher Self-Efficacy Research

Since the onset of research related to teacher self-efficacy began in the 1970s and 1980s, much progress has been made (Tschannen-Moran & Hoy, 2001). Though there are numerous publications on the matter and a variety of measurement tools have been developed to explore various important domains, Klassen et al. (2011) noted that there is evidence of a slowed

momentum in this area of research. Klassen et al. (2011) asserted that the current state of teacher self-efficacy research lacks current supportive evidence of the numerous sources of teacher self-efficacy across contexts as well as a clear definition and measure of the construct.

Future Directions

The most recent critique of teacher self-efficacy research over the past forty years offered many avenues for future research (Klassen et al., 2011). This critique noted a need for a diversification of research methodologies in teacher efficacy research, including more qualitative and longitudinal studies. As noted by Klassen et al (2011), longitudinal research in particular would further "mature the construct" (p. 24), leading to a greater understanding about the development of teacher self-efficacy over time. Klassen et al. (2011) also proposed that the sources of teacher efficacy require further research, particularly exploring their operation in practice. Further research in this area could provide insight into how to better enhance self-efficacy. Measurement validity was proposed by Klassen et al. (2011) as an additional area of continued research, specifically as it relates to the development of one congruent, reliable measure. Additionally, Klassen et al. (2011) asserted that teacher self-efficacy research requires more focus on external validity. At the time of their critique, most teacher self-efficacy research had been done in among primarily white teachers in the United States and Australia (Klassen et al., 2011). This points to a low generalizability to non-westernized cultures and educational systems. Additionally, Shunk & Pajares (2009) asserted that the construct of teacher self-efficacy, as well as much of educational psychology research, lacks culturally attentive research. Pajares (2007) called for more research samples that include teachers from diverse social and cultural groups and further attention to the impact of cultural background, social class, socioeconomic status, and marginalization on teacher self-efficacy. Lastly, Klassen et al. (2011)

proposed a need for further investigation of the domains of teacher self-efficacy in the context of more specific content areas. Though research exists examining teachers' confidence in teaching various subjects, little is known about other domains of the teaching experience as they relate to self-efficacy.

Teacher Self-Efficacy and Mental Health in Classrooms

Though not noted in Klassen et al.'s (2011) critique, an examination of teacher self-efficacy as it relates to the domain of mental health needs of students is indicated. This is particularly evident given a notable increase in reported mental health concerns among school-aged youth as well as an increase in help-seeking behaviors among young people (Child Mind Institute, 2016). Considering contemporary context, many state legislative bodies in the United States announced potentially large budget cuts and teacher furloughs as a result of the 2020 COVID-19 pandemic (Washington Post, 2020). This could result in numerous lay-offs and increased workload of teachers who maintain employment. Additionally, the National Center for Education Statistics (2016) reports that 31% of public schools reported school violence in the 2015-2016 school year, including bullying, cyberbulling, and violent threats. The United States has reported 180 incidents of gun violence in schools since the year 2010 (Sandy Hook Promise, 2020). These factors are indicative of a need to address the role of schools and teachers in supporting the mental health and wellbeing of students, and the frame of teacher self-efficacy lends itself to a greater understanding of this need.

Mental Health in Schools

Schools have been identified as primary intervention sites for student mental health services because of their "nearly universal contact with all children and families" (Frauenholtz, Williford, & Mendenhall, 2015, p. 47). Schools often act as a connection between families and

their community (Cappella et al., 2008) and with proper supports offer a potentially safe, neutral setting with the capacity to support student mental health (Allen-Meares, 2006). School staff, particularly teachers, play a key role in identification and intervention of student mental health concerns (Franklin et al., 2012). Though the role of teachers is not to diagnose or treat mental illness, teachers are often among the first to observe potential social, emotional, or behavioral concerns among students. As such, there is a direct need for teachers to be trained in concepts related to mental health and wellbeing in order to best support the needs of their students and maintain safe, effective classroom environments (Whitley & Gooderham, 2016). As noted in Meldrum et al., (2009), "it is…imperative that teachers are equipped with the practical tools and knowledge required to recognize and intervene appropriately in situations where mental illness may be a concern" (p. 63).

Research has demonstrated that teachers and schools face significant barriers to addressing student mental health needs as well as implementing prevention and intervention services (Mendenhall, Iachini, & Anderson-Butcher, 2013). Notable barriers include lack of access to resources related to mental health including curriculum and support staff such as counselors and psychologists, lack of support or buy-in from school and administration, time constraints, the significant number of roles already held by teachers in their classrooms, as well as lack of training and knowledge regarding concepts related to mental health (Frauenholtz, Williford, & Mendenhall, 2015; Whitley & Gooderham, 2016). This training and knowledge is also referred to as mental health literacy, defined as "knowledge and beliefs about mental disorders which aid their recognition, management, or prevention" (Jorm et al., 1997, p. 182). Jorm (1997; 2012) identified five elements to mental health literacy:

> "Knowledge of how to prevent mental disorders, recognition of when a disorder is developing, knowledge of help-seeking options and treatments available, knowledge of effective self-help strategies for milder problems, and first aid skills to support others who are developing a mental disorder or are in a mental health crisis." (p. 231)

Kutcher and Wei (2014) expand this understanding to consider the teaching environment, identifying four components of teacher mental health literacy: "understanding how to foster and maintain positive mental health, understanding mental health disorders and their treatment, decreasing stigma, and seeking help effectively" (p. 23). Mental health literacy is reportedly increased through teacher education during college experiences, pre-service trainings, and professional development (Carr et al., 2018; Koller & Bertel, 2006; Long et al., 2018; Wei et al., 2019). However, most research on exploring and increasing teacher mental health literacy focuses on signs and symptoms of Attention-Deficit/Hyperactivity Disorder, with a lesser focus on other common mental health disorders of childhood and adolescence such as anxiety, depression, and behavioral concerns (Whitley & Gooderham, 2016; Pozanski, Hart, & Cramer, 2018). Whitley & Gooderham (2016) assert that this limited understanding about the social, emotional, and behavioral concerns that can be experienced during childhood and adolescence and lead to less awareness of mental health concerns, and as a result fewer supportive interventions (such as referral to counseling) made by teachers.

In addition to mental health literacy as a factor that aids teachers in supporting student mental health, it is also important that the beliefs of teachers regarding mental health are explored, as these beliefs are a key component of their mental health literacy (Jorm et al., 1997). Currently, limited research exists regarding teachers' attitudes and beliefs about mental health in classrooms (Whitley & Gooderham, 2016). As such, Whitley & Gooderham (2016) suggested

that further research is indicated to examine teachers' held beliefs related to mental health and their capabilities in addressing mental health needs as a way to tailor approaches to training and in-school supportive services.

Teacher Self-Efficacy and Mental Health

Though the body of research is currently small, teacher self-efficacy has received attention as a factor of interest in understanding the role of teachers in supporting the mental health and wellbeing of their students. Whitley & Gooderham (2016) asserted that teachers' beliefs about their own capacity to support students is related to their "willingness to adapt instruction…and take responsibility for meeting the needs of students with exceptionalities in their classrooms" (p. 67). Jennings and Greenberg (2009) also identified teacher self-efficacy as a contributing variable to the development of healthy classroom climates. Their prosocial classroom model identifies teacher self-efficacy alongside school climate, administrative leadership, and peer support as factors that work in concert with mental health literacy to create a healthy classroom environment (Jennings & Greenberg, 2009).

Research documenting a felt lack of preparedness among teachers indicated that self-efficacy in including students with mental health issues is low related to other areas (Walter et al., 2006). Whitley & Gooderham (2016) noted that teachers tend to report minimal professional learning opportunities related to mental health and mental health literacy. A study by Walter et al. (2006) showed that education and direct experience with mental health concerns in the classroom were related to teachers' reported self-efficacy. Whitley and Gooderham (2016) added that though the relationship between teachers' ability to support the mental health needs of students and their reported self-efficacy exists, little to no research has examined contextual factors such as teacher demographics and teaching environment on this relationship.

Teacher Mental Health Self-Efficacy

As noted, teacher mental health self-efficacy as a construct has received limited attention and further examination is indicated (Walter et al., 2006; Whitley & Gooderham, 2016). In this study, teacher mental health self-efficacy seeks to measure teacher's felt sense of preparedness and confidence in their capability to support the social, emotional, and behavioral wellbeing of their students. This includes concepts related to mental health literacy, intervention (including classroom management), referral to higher levels of care, integrating relevant mental health concepts into classroom instruction, and overall capacity for maintaining one's own mental health and wellness while teaching. The following study will use a new measure adapted from Tschannen-Moran, Woolfolk-Hoy, & Hoy's (1998) *Teacher Sense of Self-Efficacy Scale* to explore teachers' perceptions of their self-efficacy related to supporting the social, emotional, and behavioral needs of students, examining differences among factors such as school climate, classroom environment, teaching experience, and training. In doing so, the study hopes to provide helping professionals, mental health educators, teacher educators, and school administrators with more knowledge on the needs of teachers related to student mental health.

CHAPTER 3

METHODS

Procedures

The data used in this study was gathered through Qualtrics using self-report measures. The University of Georgia Institutional Review Board reviewed and approved the study and the data collection in the Spring of 2020. The Qualtrics survey site was organized and put together by the doctoral student conducting the study. Participants learned of the survey through recruitment emails sent with permission through statewide teaching listservs, recruitment emails sent to statewide public-school principals using a publicly available email list, flyers posted with permission on statewide teaching Facebook groups and social media, as well as word of mouth. It is believed that between 200 teachers received information about the survey through these methods. With 122 beginning the survey and 89 completing it, the approximate return rate of the survey was around 44%. The recruitment email and flyer informed teachers of the study and include a link to the survey site. If teachers were interested in participating, they were able to click on or type the link into a browser and be taken to the Qualtrics site. The first page of the survey seen by participants was the informed consent, which provided information to participants regarding the voluntary nature of their participation as well as the ability to stop at any time without consequence. Interested, consenting participants were able to provide their consent by clicking a button stating that they understand the informed consent and decided to continue with the survey.

Teaching history and teacher demographic information, the adapted measure about teacher mental health self-efficacy, and optional personal demographic information followed the informed consent in the survey. Completion of the questions took approximately 15-20 minutes. The Institutional Review Board (IRB) at the University of Georgia approved all procedures of this study. Data was stored on the Qualtrics server and then downloaded into SPSS for analysis. No identifying information was stored alongside survey answers. A mechanism of Qualtrics was set up to prevent individuals from being able to take the survey more than once, controlling for false data. All incomplete survey responses were removed from the data, with 122 responses recorded and 30 incomplete, resulting in N=89 complete responses used for data analysis.

Description of the Sample

Participants meeting inclusion criteria for this study were 122 teachers in the state of Georgia in the United States who are currently practicing in a public, private, Montessori, charter, magnet, or alternative school. After controlling for univariate outliers and removing incomplete surveys, the total sample consisted of 89 k-12 teachers in the state of Georgia in the United States. Of the 89 respondents, the majority self-identified as female (N = 77, 86.52%), with fewer male (N = 11, 12.36%) and non-binary (N = 1, 1.12%) participants. 78 respondents self-identified their race as white (87.64%), 6 as Black (6.74%), 3 as Latinx (3.37%), 1 as Asian (1.12%) and one as of Indigenous Canadian background (1.12%). These demographics are generally consistent with gender identity and race demographics represented by the Georgia Department of Education's (2017) most recent workforce report. Refer to tables 1 and 2 for further personal and teaching demographic characteristics.

Table 1:
Personal Demographic Characteristics of Participants (N=102)

Characteristics	Frequency	Percentage
Gender Identity		
Female	77	86.52%
Male	11	12.36%
Non-Binary	1	1.12%
Race/Ethnicity		
Arab/Arab-American	0	0%
Asian/Asian-American	1	1.12%
Black/African	6	6.74%
First Nations/Indigenous	0	0%
Latinx/Latino/Latina	3	3.37%
Multiracial/Mixed Race	0	0%
South Asian/Pacific Islander	0	0%
White	78	87.64%
Self-Describe	1	1.12%

Table 2:
Teaching Demographic Characteristics of Participants (N=102)

Characteristics	Frequency	Percentage
School Setting		
Public	73	82.02%
Private	11	12.36%
Magnet/Charter	5	5.62%
Montessori	0	0%
Alternative	0	0%
Religiously Affiliated	0	0%
School Location		
Urban	40	44.94%
Urban Cluster	32	35.96%
Rural	17	19.10%
Years of Experience		
1-3	20	17.8%
4-7	22	24.72%
7+	47	52.80%
Grade Levels*		
Pre-Kindergarten-5	101	40.72%
6-8	62	25%
9-12	85	34.27%
Subjects Taught		
Math	8	8.98%
English/Language Arts	18	20.22%
Science	4	4.49%
History/Social Studies	5	5.61%
Visual/Performing Arts	16	17.97%
Physical Education/Health	1	1.12%
Languages	8	8.89%
Special Education/Gifted/ESOL	9	10.11%
Not Applicable (Elementary)	20	22.47%
Education		
Associate Degree	0	0%
Bachelor's Degree	26	29.21%
Master's Degree	46	51.69%
Doctorate (PhD, EdD)	4	4.49%
Other (EdS)	13	14.61%

*This question included a "select all that apply" feature. Many respondents taught multiple grade levels, resulting in 248 responses among 89 respondents

Design

Because the body of literature on teacher mental health-self efficacy is currently limited, an exploratory research design was appropriate for examining the research questions in this study (Shadish, Cook, & Campbell, 2002). The focus of the exploratory design was to gain insight into the concept of teacher mental health self-efficacy as reported by teachers using a new measure, as well as to consider the impact of antecedent factors on reported mental health self-efficacy. The exploratory design allowed the researcher to examine data using a smaller sample size as a way to begin increasing familiarity with the concept of teacher mental health self-efficacy, and to begin the process of validating a potential measure for this construct (Given, 2008).

Limitations of this type of research design include limited generalizability and ability to draw definitive conclusions (Given, 2008). Despite these limitations, this exploratory research allowed for the potential development of strong hypotheses related to teacher mental health self-efficacy, defining new and useful terms, and establishing priorities for future research (Given, 2008).

Instruments

The instrument used in this study, the *Teacher Mental Health Self-Efficacy Scale,* was adapted by the doctoral student researcher with permission from the *Teacher Sense of Self-Efficacy Scale* (Tschannen-Moran & Hoy, 2001). The TSES and its estimates of reliability and validity are described below. Because the researcher will be using a newly adapted measure to examine teacher mental health self-efficacy, current estimates of reliability and validity cannot yet be determined. At present, there are no reliable and validated measures of teacher mental health self-efficacy, though some international scholars have also begun approaching the concept of teacher self-efficacy through the lens of mental health (De George-Walker, 2010). As a result,

the researcher determined that the adaptation of a new measure of this construct using a previously validated measure of the base construct of teacher self-efficacy would be an appropriate direction. The *TSES* (Tschannen-Moran & Hoy, 2001) was used as the base for adapting a new measure because it yields high measures of reliability and validity (Shadish, Cook, & Campbell, 2002; Tschannen-Moran & Hoy, 2001). Adapted questions for the *Teacher Mental Health Self-Efficacy Scale* were changed from the original TSES as relevant to addressing the research questions of this study. Example items from the researcher's adapted measure include "How much can you do to integrate mental health and wellbeing concepts into your regular classroom curriculum?" "How much can you do to encourage students to value the importance of building personal mental health and wellbeing?" and "How much can you do to maintain your own mental health and wellbeing as it relates to your ability to perform your tasks as a teacher?"

Teacher Sense Self-Efficacy Scale (TSES)

The TSES is a self-report questionnaire that consists of 24 items (long form) or 12 items (short form) which reflect three factors of teacher self-efficacy: student engagement, instructional practices, and classroom management (z). The questionnaire is formatted in a 9-point Likert-type scale answering the question "How much can you do?" for each statement presented (1-2 = Nothing, 3-4 = Very Little, 5-6 = Some Influence, 7-8 = Quite a Bit, 9 = A Great Deal). Example items include "How much can you do to get children to follow classroom rules?" "To what extent can you provide an alternative explanation or example when students are confused?" and "How much can you assist families in helping their children do well in school?" (Tschannen-Moran & Hoy, 2001). Items in the TSES are aggregated to yield three subscale scores (Efficacy in Student Engagement, Efficacy in Instructional Strategies, and Efficacy in

Classroom Management) as well as an overall score. The TSES is considered reasonably reliable and valid in its 24- and 12-item forms. It has positively correlated with other measures of teaching efficacy, providing evidence of construct validity (Tschannen-Moran & Hoy, 2001). Within the original study of the reliability of the TSES, Chronbach's reliability coefficient indicated high internal consistency (alpha = .94 for the long form, alpha = .90 for the short form). This study adapted the TSES with permission from the author Dr. Tschannen-Moran into a new scale to examine mental health self-efficacy.

Data Collection

The data in this study was collected through online survey using the Qualtrics online system. As noted in the procedures section above, participants were informed of the study through recruitment emails and flyers distributed to various teaching listservs and social media groups with permission. Data collected was not stored with identifying information and was downloaded from the Qualtrics online system for analysis using SPSS statistical analysis software. The group tested, N = 89, included practicing k-12 teachers in the state of Georgia who consent to participation in the survey for data collection.

Statistical Treatment

The goal of the study was to learn more about Georgia teachers' felt sense of mental health self-efficacy as well as to examine the relationship between various antecedent factors and teacher's reported mental health self-efficacy, specifically school factors and training factors. To examine the first research question regarding respondents overall felt sense of mental health self-efficacy, descriptive statistics were used to examine the distribution of overall mental health self-efficacy as reported by the respondents. A Cronbach's Coefficient Alpha was used to examine the internal consistency of the adapted measures, the Teacher Mental Health Self-Efficacy Scale.

Specific analyses were also performed to examine the second and third research questions, addressing correlations between various teaching factors (experience, subjects taught, training and education related to mental health, sense of support from administration) and mental health self-efficacy.

Limitations

1. A limitation of this study is the study's reliance on self-report survey data, thus adding to the likelihood of positive self-presentation among respondents.
2. A second limitation in the study is that it was limited to online recruitment only, potentially limiting the sample.
3. A third limitation of this study is that it was conducted during the global pandemic response to the COVID-19 virus, potentially impacting responses to survey questions related to mental health and wellbeing.
4. A fourth limitation of the study is that the measure used was adapted from a scale with repeated research and measurement validity results, though the adapted measure has not been analyzed for reliability and validity.
5. A final limitation to the study is the limited diversity and generalizability of the sample, as participants in the study were limited to teachers in the state of Georgia in the United States.

Assumptions

1. It is assumed that all participants answered the measures honestly and that each of the measures are valid.
2. It is assumed that all invalid measures were removed from the sample.

Hypotheses

Research Question 1

To what extent do teachers feel prepared and able to support student mental health?

Research Question 2:

How does teacher's mental health self-efficacy vary based on number of years teaching, level of education, school resources, gender, race, and administrative or collegial support?

Research Question 3

Is there a relationship between teacher education about mental health and level of preparedness to address student mental health?

CHAPTER 4

RESULTS

Findings

The primary purpose of this study was to examine whether teachers in a region of the Southeastern United States feel prepared and able to effectively support student mental health. The study examined how subjective factors including experience, collegial support, resources, gender, race, and administrative support relate to teacher's self-reported mental health self-efficacy. The study also explored level of teacher education and training regarding mental health concepts as it relates to preparedness to address student mental health concerns. Additionally, an adapted measure of teacher self-efficacy which focuses on addressing student mental health needs was be examined for internal consistency for future study. Specifically, we aimed to explore the impact of these factors on teacher's mental health self-efficacy as a way to direct future research, education, and professional development.

Data Analysis

Research Question 1:

To what extent do teachers feel prepared and able to support student mental health?

Analysis 1:

In order to assess the extent to which teachers feel prepared and able to support student mental health, descriptive statistics were used to examine the overall distribution of the data, specifically identifying the overall mean and standard deviation among respondents completing the 25-item teacher mental health self-efficacy measure. Participants responses (N = 89) revealed

an overall mean of $M = 3.86$, with a standard deviation of *SD* = .537. A histogram of the teacher mental health self-efficacy mean can be found in Figure 1.

Null Hypothesis 1: There is no variance among teachers in level of preparedness or ability to support student mental health. The results indicate wide variance among respondents (*N* = 89) on the 25-item measure of teacher mental health self-efficacy. Null hypothesis 1 is rejected.

An additional analysis was performed to examine the internal consistency of the adapted Teacher Mental Health Self-Efficacy measure. Cronbach's Coefficient Alpha revealed excellent internal consistency of the 25-item measure ($\propto$ = .934). To have an adequate internal reliability, the Cronbach's coefficient alpha should be above $\propto$ = >0.7 (Shadish, Cook, & Campbell, 2002). In addition to the overall appearance of average to high average teacher mental health self-efficacy as identified by the respondents of the survey, the survey itself is a reliable measure of the construct of teacher mental health self-efficacy.

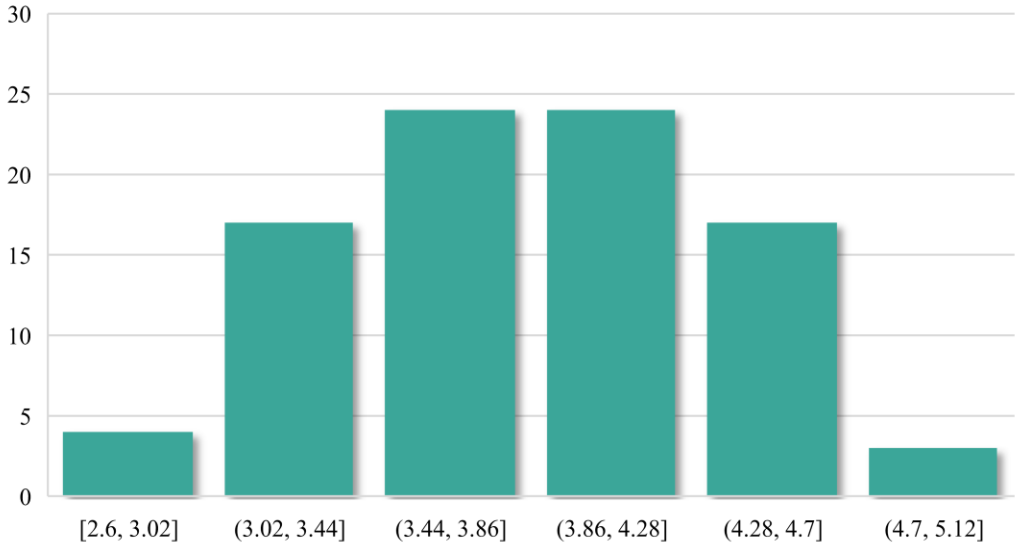

Figure 1. Histogram of Overall Teacher Mental Health Self-Efficacy

Research Question 2:

How does teacher's mental health self-efficacy vary based on number of years teaching, level of education, school resources, gender, race, and administrative or collegial support?

Analysis 2:

In order to assess the relationship between various teaching demographics and teacher mental health self-efficacy, Pearson correlation coefficients were computed with 95% confidence. Positive correlations were found between teacher mental health self-efficacy and teacher's reported administrative support ($r = .271$, $p < .05$), collegial support ($r = .231$, $p < .05$), and feeling as though they have enough resources to support student mental health ($r = .417$, $p < .05$). However, no correlation was found between teacher mental health self-efficacy and number of years employed, level of education obtained, gender, or race with $p > .05$ in these cases. There was a strong, positive correlation between teacher mental health self-efficacy and teacher's felt sense of support from their administrators and colleagues, as well as feeling as though they have enough resources to support student mental health. However, there was no significant correlation between teacher mental health self-efficacy and number of years employed, level of education obtained, self-identified gender, or self-identified race. Refer to Table 3 for correlation chart.

Null Hypothesis 2: Teacher self-reported administrative support, collegial support, and access to resources have no impact on teacher mental health self-efficacy. The results indicated a significant association between mental health self-efficacy and teacher's felt sense of support from administrators and colleagues, as well as feeling as though they have enough resources to support student mental health. There was no significant relationship between mental health self-efficacy and number of years employed, level of education obtained, self-identified gender, or

self-identified race. Although some findings were nonsignificant, there were significant findings among correlation analyses. Therefore, null hypothesis 2 is rejected.

Table 3

Correlations for the Teacher Mental Health Self-Efficacy Scale (TMHSES)

(N=89)	Pearson Correlation	p-value
Years Employed	.076	.480
Level of Education	-.054	.616
Gender	.021	.845
Race	.119	.276
Administrative Support	.271	.01**
Collegial Support	.231	.029*
Resources	.417	.000***

p<.05*, *p*<.01**, *p*<.001***

Research Question 3:

Is there a relationship between teacher education about mental health and teacher mental health self-efficacy?

Analysis 3:

To examine the relationship between teacher education about mental health topics and their mental health self-efficacy, a further correlation analysis was performed. Pearson's correlation coefficients were computed with 95% confidence, revealing a statistically significant correlation between teacher mental health self-efficacy and amount of coursework on mental health concepts during teacher education ($r = .324$, $p < .05$) as well as greater amounts of mental health-focused professional development ($r = .386$, $p < .001$). In conclusion, there is a strong, positive correlation between teacher mental health self-efficacy and the amount of educational coursework on mental health provided during teacher training. There is also a strong, positive correlation between teacher mental health self-efficacy and greater amounts of mental health-focused professional development.

Null Hypothesis 3: Teacher education on mental health does not impact teacher mental health self-efficacy. The results indicated a strong, positive correlation between teacher education or professional development experiences and teacher mental health self-efficacy. Therefore, null hypothesis 3 is rejected.

Table 4

Correlations for the Teacher Mental Health Self-Efficacy Scale (TMHSES)

(N=89)	Pearson Correlation	p-value
Coursework	.324	.011**
Professional Development	.386	.001***

p<.05*, *p*<.01**, *p*<.001***

CHAPTER 5

DISCUSSION

Summary of Study

Among children and adolescents in the United States, mental health concerns are among the most common health issues reported. According to the Child Mind Institute's *Children's Mental Health Report* (2016), one in five children suffers from a mental health or learning disorder, and approximately 80% of chronic mental health concerns begin before age 14 (Child Mind Institute, 2016). These concerns range from common conditions such as depression, anxiety, and behavior problems to less prevalent and often more severe conditions including conduct disorders, schizophrenia, and autism (Child Mind Institute, 2016; Kessler et al., 2007; U.S. Department of Health and Human Services, 2019). The negative impact of mental health concerns can put children at risk for poor outcomes across functioning in school, at home, and in community (Adelman & Taylor, 2006; ChildMind Institute, 2016; Raver & Knitzer, 2002; Spernak, Schottenbauer, Ramey, & Ramey, 2006; Wang, Haertel, & Walberg, 1997).

Numerous avenues currently exist to support the individual mental health of children, including evidence-based psychotherapy and psychopharmacology. However, individual treatment alone is "insufficient to slow the growth of mental health problems and reduce associated impacts for individuals, families and communities" (De George-Walker, 2010, p. 19). The United States Department of Health and Human Services (HHS, 2018) has urged providing "sophisticated, comprehensive services" to support children, including school and community supports that create a holistic approach to mental health care (HHS, 2018, no page).

Researchers and practitioners alike heed this call toward a holistic approach to child mental health care, including school systems. School systems and school employees present an opportunity for early intervention and recognition of mental health needs, as teachers are primed to observe and identify signs of mental health concerns (Askel-Williams, Lawson, & Slee, 2009; Askel-Williams & Lawson, 2013; Frauenholtz, Williford, & Mendenhall, 2015; Graham, Phelps, Maddison, & Fitzgerald, 2011; Rowling, 2008). In many cases, teachers are expected to be the first line of defense for early identification of mental health concerns among students, and often take on responsibilities such as consultation and referral to school counselors, the creation of strategies, and integration of social and emotional learning concepts in their classroom management (Heller et al., 2011; Hornby & Atkinson, 2003; Inlow, 1963; Marlow et al., 2015; Mellin et al., 2017; Wood, 2011).

Teacher's views about their roles and responsibilities regarding student mental health are varied. Many teachers report that supporting student social, emotional, and behavioral wellbeing is part of their job responsibilities (Askell-Williams, Lawson, & Slee, 2009; Graham, Phelps, Maddison, & Fitzgerald, 2011; Mazzer & Rickwood, 2015; Shelemy, Harvey, and Waite, 2019) though other teachers consider this additional responsibility a deterrent from their academic goals (Gott, 2003; Kidger, Gunnell et al., 2009; Lohrmann, Forman, Martin, & Palmieri, 2008; Shelemy, Harvey, and Waite, 2019). Additionally, teachers struggle to identify potential concerns (Armstrong, Price, & Crowley, 2015; von der Embse et al., 2018), underutilize referral sources and consultation (Heller et al., 2011; Mellin et al., 2017) and often do not have adequate knowledge of mental health (Askell-Williams et al., 2009; Cohall et al., 2007; Hornby & Atkinson, 2003; Koller et al., 2004; Moor et al., 2007; Roeser & Midgley, 1997; Rothi, Leavey, & Best, 2008b; Sawyer et al., 2010; Walter, Gouze, & Lim, 2006).

A number of influential variables have been proposed regarding teachers' attitudes and readiness to support the wellbeing of their students, including limited time and competing demands, lack of resources, perceived lack of systemic support, and level of training around mental health (Carr, Wei, Kutcher, & Heffernan, 2018; Hahn, Noland, Rayens, & Christie, 2002; Koller & Bertel, 2006; Han & Weiss, 2005; Jennings & Greenberg, 2009; Rowling, 2009; Whitley & Gooderham, 2016). Personal variables may also influence teachers' attitudes in this area, including self-care, burnout, and teacher self-efficacy (Askell-Williams et al., 2009; Tschannen-Moran & Hoy, 1998). Teacher self-efficacy is predictive of attitudes, behavior, performance, and student achievement (Bandura, 1977b; 1993; 2006; Tschannen-Moran & McMaster, 2009; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998; Usher & Pajares, 2008). Teacher self-efficacy is associated with an increase in positive teacher attitudes regarding supporting student wellbeing (Askell-Williams, 2005). Teacher's sense of preparedness and confidence in their ability to address the mental health needs of their students has not yet been fully explored in the United States.

The primary purpose of this study was to build upon research and examine teachers' perceptions of their own self-efficacy regarding effectively supporting student mental health. The study examined how subjective factors including school setting, grade-level or subjects taught, experience, and administrative support relate to overall teacher mental health self-efficacy. The study also explored level of teacher education and training regarding mental health as it relates to preparedness to address concerns. Additionally, an adapted measure of teacher self-efficacy focused on addressing mental health needs was examined for internal consistency. The exploration of the impact of these factors on teacher's mental health self-efficacy is proposed as

a way to direct future research, education, and professional development for teachers and mental health professionals who work within schools.

Discussion of Findings

In order to examine teacher's overall self-reported sense of self-efficacy related to supporting student mental health, descriptive statistics were used the distribution of the data from a 25-item self-report measure adapted from a previously validated measure of similar structure (Tschannen-Moran & Hoy, 2001). An examination of the overall scores among respondents (N = 89) revealed a mean of $M = 3.86$, with a standard deviation of SD = .537. When plotted on a histogram, a close to normal distribution could be seen, with most respondents reporting average levels of teacher mental health self-efficacy. In order to determine if the self-report measure was an overall accurate way to measure the construct of teacher mental health self-efficacy, a Cronbach's coefficient alpha was calculated. This analysis revealed excellent internal consistency of the 25-item measure ($\propto$ = .934). To have an adequate internal reliability, the Cronbach's coefficient alpha should be above $\propto$ = >0.7 (Shadish, Cook, & Campbell, 2002). In addition to the overall appearance of average teacher mental health self-efficacy as identified by the respondents of the survey, the survey itself is a reliable measure of the construct of teacher mental health self-efficacy. With further study, the measure could be a reliable way to examine teacher's capacity and preparedness to support student mental health in their classrooms.

After finding that the respondents to the internally consistent survey generally reported feeling moderately efficacious regarding supporting student mental health, we examined specific factors that may contribute to overall mental health self-efficacy. The relationship between teacher mental health self-efficacy and specific teacher demographic factors was examined using Pearson correlation coefficients. A positive relationship was found between teacher mental

health self-efficacy as reported in the measure and felt sense of support from school administrators such as principals ($r = .271$, $p < .05$) and collegial support from coworkers ($r = .231$, $p < .05$). These results suggest that when teachers feel supported by upper administration and their coworkers, they feel more capable in providing support to their students when they are struggling. As such, these professional connections provide support to teachers that make them feel as though they can effectively address mental health needs of students. Additionally, a positive correlation was found between teacher mental health self-efficacy and teachers feeling as though they have access to resources to support student mental health, such as easy access to counselors, a system of referrals, parent communication, and school supplies related to mental health needs ($r = .417$, $p < .05$). These results highlight that when teachers have adequate access to things they need in their classrooms, such as appropriate supplies, access to support staff such as counselors, and an established system of communication internally and with families, they are more readily able to meet the needs of their students. Further positive correlation was found between teacher mental health self-efficacy and amount of coursework on mental health concepts during teacher education ($r = .324$, $p < .05$) as well as greater amounts of mental health-focused professional development ($r = .386$, $p < .001$). These results highlight the importance of informed and effective training during teacher education and in professional development experiences throughout employment. When teachers are effectively trained to understand core constructs related to mental health such as warning signs, risk factors, and appropriate language, they are more readily able to intervene when appropriate or make referrals as needed. There was no relationship found between teacher mental health self-efficacy and years employed as a teacher, level of education obtained, gender identity, or race. Lack of statistical significance does

not immediately imply that these factors do not contribute to teacher mental health self-efficacy among individuals, as they are all important professional and identity factors for teachers.

Overall, the findings in the study suggest that teacher mental self-efficacy is a measurable construct that can be used to examine teacher's capacity and preparedness to address student mental health and wellbeing, as well as address concepts related to mental health in their classrooms. Teachers who reported feeling supported by coworkers and administrators, who took classes or professional development trainings that discussed mental health, and who have access to needed resources reported higher mental health self-efficacy. These results suggest that many levels of support within a school can inform a teacher's ability to perform the multiple tasks they are responsible for on a daily basis. Though the construct of teacher mental health self-efficacy has received limited attention, its importance remains clear, as represented by the teachers in this study who almost unanimously identified feeling as though it is one of their job duties to support the mental health and wellbeing of their students ($M = 4.56$, $SD = 0.62$). With further study across schools and communities, the construct of teacher mental health self-efficacy could support increased training and support for teachers, leading to increased supportive mental health interventions for students.

Clinical and Practical Implications

The findings of this study have several clinical implications. This is particularly the case when considering the educational system in the United States at the time of this writing, wherein teachers regularly navigate funding cuts, have to provide supplies out of their own pockets, and take on multitude roles beyond the confines of their job descriptions. Teachers are often spending more hours than they are typically paid preparing and executing their daily tasks, planning lessons, and participating in activities outside of the classroom to support their student's

interests and needs. These experiences have the potential to exacerbate burnout and work exhaustion, as well as have negative financial implications resulting in the commonplace out-of-pocket costs of some teaching-related tasks. Conversely, and more positively, teacher involvement is likely to build bonds and create systems of support for students who may not otherwise receive individualized attention. Additionally, teachers have been identified as a valuable resource for students experiencing mental health concerns because of their regular contact and often close, caring relationships. Clinicians across mental health fields should consider the impact of collaboration with teachers when serving child and adolescent clients, as their observations and understanding of their student's needs could add significant value to treatment, as well as provide an additional supportive adult in the life of a child or adolescent. Additionally, the overall wellbeing of teachers deserves further attention, as without their own access to supportive services such as peer consultation, training, and therapy, teachers would not be able to meet the needs for their students and may leave their fields earlier than expected. Clinicians working with adults employed in teaching roles should consider the impact of compassion fatigue and burnout on teacher's self-efficacy, as well as their overall mental health and wellbeing.

More globally, these findings highlight a gap in psychologists' work as educators and consultants within school settings and training institutions, as well as the potential to serve teachers by providing thorough, evidence-based, accessible education and training. This study suggests a need for standardized curriculum and training for individuals outside of helping fields on concepts related to mental health and child development in undergraduate- and graduate-level teacher training institutions, as well as further training on consultation and collaboration between psychologists and teachers. Additionally, professional development training for educators in k-12

settings covering topics related to student mental health and wellbeing should be provided within school settings at no cost to schools or teachers on a regular basis. Doing so could provide an educational foundation for teachers who, as this study suggests, care deeply for their students' wellbeing and want to play a role in supporting their mental health.

As psychologists, we are trained not only to provide direct service through our clinical work, but to share our knowledge with others through education, community building, and advocacy. This study highlights the unique opportunity to use our skills to support teachers in best supporting their students.

Limitations

The findings and implications of this study have the potential to further research in this area, but they are not without limitations. These limitations should be considered in both appreciation for and critical evaluation of the study. Though the respondents' race and gender identity demographics are similar to those of teachers in the state of Georgia, the sample was not as diverse as the population of the area, and primarily highlights the perspectives and experiences of white cisgender women. Along with the survey being completed most often by cisgender white female teachers, other trends noted among respondents included teaching for fewer than 7 years, teaching in a suburban environment (population < 50,000), and reporting a significant sense of responsibility related to mental health. In order for this data to be fully representative of teachers across localities, subjects, ages, and other identities, further research should be done with a larger, more diverse sample to draw further conclusions.

A second limitation was the reliance on self-report measures. Each of the data points used in analysis was self-reported by participants and the assumption was that participants were being honest, though there is no way to ensure this was the case. There were also 122 original

respondents to the study, while only 89 were used after controlling for outliers and unfinished surveys. Though there is no way of knowing why 23 respondents did not complete the survey in its entirety, it should be noted that of the 23 surveys that were eliminated from the study, 19 were 70% complete. The 70% completion mark of the 15-minute survey fell approximately where the beginning of the Teacher Mental Health Self-Efficacy Scale began. Additionally, the online survey recruitment took place in the Summer of 2020, during the COVID-19 pandemic, wherein many teachers across the United States were preparing for an uncertain return to schools. Though these factors cannot be directly linked to specific areas of the study, they are important to note for contextual understanding. Lastly, an important consideration is the potential subconscious bias of this researcher conducting the study. It is possible that the researcher's own identity dimensions and lived experiences could have impacted aspects of conducting the study that altered results unknowingly. Any actions or factors that may have impacted the study would have been subconscious and unintentional, however it is important to know that any study or piece of research is not immune to the influence of the researcher.

Recommendations for Future Research

Given the significant findings of this study it would be beneficial for future research to replicate and expand on this research. Future studies would benefit from larger samples of teachers to further identify the reliability and validity of the TMHSE measure. Additionally, replicating this study with a more diverse sample of teachers in terms of region, identity dimensions, age, school setting, and more would greatly benefit literature on the topic of teacher mental health self-efficacy. It is recommended that future studies, if using the same computerized survey, consider varying the location of the TMHSE measure within the online survey in the event that this would lead to more completed surveys. Future studies should also

examine additional factors that could be associated with teacher mental health self-efficacy alongside the factors identified in this study. Considering additional factors such as community-level barriers, school funding and budget, licensure, and teacher self-care and burnout, among others could help determine more accurately which factors have the greatest connection to increases and decreases in teacher mental health self-efficacy. It is the hope of the researcher that this topic will continue to be examined through a critical lens, as supporting teachers means supporting students, the future leaders and dreamers of our world.

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APPENDICES

APPENDIX A

TEACHER MENTAL HEALTH SELF-EFFICACY SCALE

Adapted with permission from the author from the Teacher Sense of Self Efficacy Scale (Tschannen-Moran, M & Hoy, A. W., 2001)

The following questions are designed to help us gain a better understanding of teachers' experiences supporting the mental health and social, emotional, and behavioral wellbeing of their students. The questions are designed to measure what you feel you "can do" to support your students. For each statement below, select one number that best indicates how confident you are that you can successfully do these things.

Indicate your opinion about how much you can do about each statement on a scale of 1-5.

Nothing (1)
Very Little (2)
Some Influence (3)
Quite a Bit (4)
A Great Deal (5)

1. How much can you do to create a classroom environment in which your students feel safe?
2. How much can you do to develop supportive relationships with your students?
3. How much can you do to develop partnerships with students' families to support their emotional, social, or behavioral needs (this includes implementing IEPs)?
4. How much can you do to build and maintain supportive relationships with your school's administrators?
5. How much can you do to collaborate with your school's support staff (counselors, psychologists, special education) to intervene or make referrals to support your students' social, emotional, or behavioral needs?
6. How much can you do to provide input into school policies that support student mental health and wellbeing?
7. How much can you do to integrate mental health and wellbeing concepts into your regular classroom curriculum?

8. How much can you do to teach skills or concepts related to mental health and wellbeing in your classroom (ex. social interaction, feelings, interpersonal issues, problem solving)?
9. How much can you do to use your personal skills to model to students how to effectively use mental health and wellbeing skills?
10. How much can you do to encourage students to value the importance of building personal mental health and wellbeing?
11. How much can you do to model respect for diversity of experiences, cultures, and backgrounds when discussing mental health and wellbeing in your classroom?
12. How much can you do to avoid reinforcing stereotypes and stigma when discussing mental health and wellbeing in your classroom?
13. How much can you do to address sensitive or complex topics when discussing mental health and wellbeing matters in your classroom (ex. drug use, bullying)?
14. How much can you do to respond to challenging comments and questions when addressing mental health and wellbeing in your classroom?
15. How much can you do to respond at the classroom level to school-wide events that might impact student mental health and wellbeing (ex. staffing changes)?
16. How much can you do to respond at the classroom level to nation-wide or world-wide events that might impact student mental health and wellbeing (ex. natural disasters, acts of violence)?
17. How much can you do to recognize emotional, behavioral, or physical risk factors a student may be experiencing related to their mental health?
18. How much can you do to respond to a student who shows signs of distress in your classroom (ex. crying)?
19. How much can you do to respond to a student exhibiting behavior problems in your classroom?
20. How much can you do to respond to a student who discloses sensitive information in relation to their mental health and wellbeing (ex. family violence, suicidal thoughts)?
21. How much can you do to address specific concerns with families regarding the mental health and wellbeing of their child?
22. How much can you do to engage your school's support services for a student you am concerned about in relation to mental health and wellbeing needs?
23. How much can you do to adapt learning resources and classroom environment as required for student's social, emotional, or behavioral needs?
24. How much can you do to maintain your own mental health and wellbeing as it relates to your ability to perform your tasks as a teacher?
25. How much can you do to recognize when you need to seek support in order to maintain your own mental health and wellbeing?