STRENGTHENING TEACHER KNOWLEDGE OF MENTAL HEALTH DISORDERS AND IMPROVING TEACHER ATTITUDES TOWARDS ADOLESCENT MENTAL HEALTH NEEDS

by
Kristen Collins Eccleston

A dissertation submitted to Johns Hopkins University in conformity with the requirements for the degree of Doctor of Education

Baltimore, Maryland
April 2021

Abstract

Symptoms of mental health disorders frequently appear for the first time in secondary school-aged students. However, students' display of mental health symptoms in schools goes unidentified during a time when intervention is most critical. Factors associated with the delayed identification of a student with mental health needs include teacher perception of their role, teacher knowledge of mental health, policies on mental health services in schools, mental health stigmas, and parent-teacher communication barriers. Previous research demonstrates that teachers do not frequently have the training necessary to identify or work with students displaying mental health needs. The purpose of this study is to facilitate the development of teacher knowledge and attitudes towards mental health needs using an intervention focused on enhancing teacher's mental health literacy. Implementation of an embedded sequential design occurred using a one-group pre-post-test structure to collect data using a mental health knowledge survey, Devaluation of Consumer Scales Survey, and Overall Satisfactions Survey. Participants (N= 12) consist of secondary school teachers engaging in a professional development program designed to increase teacher knowledge of mental health and improve attitudes associated with mental health disorders. Findings from the study indicate that participants in the self-paced online TEACH Mental Health Literacy Curriculum demonstrate a significant improvement in their understanding and views towards mental health (t = 2.38, p <.03; t = 2.22, p <.04).

Keywords: mental health, teacher knowledge, teacher role, mental health policy, stigma, school communication, service access, secondary students, social-emotional behaviors.

Dissertation Adviser: Dr. April M. Rectanus
Co-Adviser: Dr. Robert N. Ronau

Acknowledgments

This dissertation is a direct reflection of the support and guidance provided to me by several individuals, that without their guidance, this accomplishment would not be possible.

I am appreciative of my doctoral committee. To my co-chairs, Dr. April M. Rectanus and Dr. Robert N. Ronau, I am grateful for their support, endless encouragement, and unwavering patience. Dr. Rectanus challenged me to think beyond what was directly in front of me and push for new academic heights. Dr. Ronau pushed me to embrace my academic learning areas that I once felt I could not be successful in and showed me new ways of understanding. I am beyond thankful for the contributions of my other committee member: Dr. Karen Caldwell. Dr. Caldwell's encouragement, understanding, and persistence truly allowed me to expand as a learner.

Completion of this research could not have occurred without the willingness and involvement of my colleagues. I am grateful for every teacher that took the time to take part in this research. I am also thankful for the guidance, support, and encouragement provided to me by my Executive Sponsor, Dr. Leroy Evans. Words cannot express the gratefulness I have for Dr. Evans's encouragement in pushing me to think outside the box and embark on a journey that would potentially impact students' social-emotional well-being.

Finally, I am thankful to all my fellow doctoral friends that I met and worked with throughout this process, especially those in the 2018 Cohort. Although many of us are worlds apart, their support, humor, and encouragement are something that I will forever be thankful for.

Dedication

This dissertation is dedicated to my family and students:

To my parents, Christopher O. Collins & Mary A. Collins, who never stopped believing in me and provided the support I needed when I did not believe in myself,

To my in-laws for pushing me to be a lifelong learner,

To my brothers, Michael A. Collins & James P. Collins, for providing me with the life lessons, only older brothers could provide,

To my sisters-in-law, Patricia S. Collins, for being my "big" sister that has always been there for me,

To my children, Collin R. Eccleston & Brynn A.G. Eccleston, who taught me what true love feels like and inspire me to work towards creating a better world,

To my husband, Bryan D. Eccleston, who has provided a shoulder to cry on, support, unconditional love, child wrangling services, and encouragement through this process,

Furthermore, to my students--past, present & future--your individuality and learning styles have allowed me to expand my knowledge to a level that I hope will help generations of students to come. Your unique and wonderful gifts inspire me to be the best that I can be every day!

Table of Contents

List of Tables

List of Figures

Executive Summary

This mixed-method study focuses on supporting teachers' recognition and understanding of adolescents experiencing early symptoms of mental health disorders. This researcher implemented a professional development training designed to increase teachers' mental health literacy based on evidence supporting how professional development that applies active learning tasks designed to increase educators' knowledge of mental health disorders can improve attitudes towards individuals with mental health needs and improve educators' self-efficacy to apply new instructional practices (Desimone, Smith, & Guskey, 2002; Garet et al., 2008). The training provided the information necessary to increase teachers' ability to implement new knowledge and instructional practices related to mental health needs in the education setting and was assessed through the examination of an increase in knowledge and feedback pertaining to their overall satisfaction with the training.

Problem of Practice

Approximately one in five American youths, aged 13–18 (21.4%), experience a severe mental disorder (National Alliance on Mental Illness, 2016). A mental health disorder is "a mental, behavioral, or emotional disorder resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities" (National Institutes of Health, 2016, p. 1). With symptoms of mental health disorders frequently appearing for the first time in secondary school-aged students, supports focused on identifying early signs of mental health before their academic progress becomes considerably impacted are critically needed for adolescent populations (Kessler et al., 2005). Factors associated with the delayed identification of a student with mental health needs include mental health stigmas, policies on mental health services in schools, teacher knowledge of mental health, parent-teacher communication barriers,

and teacher perception of their role. Despite the display of mental health symptoms by students in schools, most students go unidentified when intervention is most critical (Kessler et al., 2005).

Factors Affecting Identification of Adolescent Mental Health Needs

Teacher Knowledge of Mental Health

Current teacher knowledge of mental health impairs teachers' ability to accurately and comfortably identify and support students displaying mental health symptoms. Kutcher, Wei, and Morgan (2015) discuss their research demonstrating the gap in teacher ability to intervene when students' mental health needs impact student attendance and academic performance. Stigma is a primary driver contributing to the lack of recognition of students' mental health needs. Unfortunately, inconsistencies currently exist in how secondary schools address stigma and views associated with adolescent mental health. Students displaying early signs of mood disorders and levels of anxiety often experience internalizing symptoms that are not easily identifiable to individuals unfamiliar with specific mental health disorders (Cross & Hickie, 2017; Eyre & Thapar, 2014). Often mental health disorders are commonly connected with cognitive impairments that contribute to academic decline. With many teachers not having the training or experience to connect the two, students are often educationally misplaced into classes and school programs that do not appropriately meet their needs (Farrell & Barrett, 2007; Moon, Williford, & Mendenhall, 2017; Papandrea & Winefield, 2011). Given the concerns associated with stigma and teacher identification of student mental health needs, there is a current need to improve instructional practices to support student learning outcomes. As a result of increased teacher knowledge of student mental health needs, a rise in student academic achievement, increased attendance, and access to earlier intervention should result (Kutcher et al.,2015).

Teacher Attitudes Towards Mental Health

Personal biases are attributable to many factors and experiences in an individual's life that shapes their attitude (Almager, 2018). Public and cultural stigma add to personal bias and contribute to individuals' views and understanding, including how teachers view mental health development. This personal bias can then lead to how teachers misunderstand and inaccurately react to a student experiencing a mental health crisis (Gabbidon et al., 2013; Frauenholtz, Williford, & Mendenhall, 2015). Additionally, teachers' attitudes towards student needs often come from school culture and the expectations put forth by school administration and the district they serve (Frauenholtz, Mendenhall, & Moon, 2017). If administrators value academics over students' social-emotional needs, that will often trickle down to how the teacher prioritizes student needs (Mahlios, 2002). Individual attitudes, bias, and beliefs towards mental health are additional variables contributing to teachers' difficulty recognizing students' mental health needs. When a student's needs conflict with how teachers prefer to approach student learning, it often leaves teachers frustrated and students without appropriate supports (Mahlios, 2002).

Teacher Professional Development

Preparation and professional development programs can often be a contributing variable towards teacher understanding of a specific topic. Most teacher preparation programs do not incorporate student mental health needs into their areas of study (Frauenholtz et al., 2015). Additionally, there are limited programs available that provide teachers with professional development on mental health topics. Moreover, the available training programs are not always conducted to garners teacher buy-in (Van Veen, Zwart, & Meirink, 2012). Effective training allows teachers opportunities to understand the social-emotional learning needs of their students in addition to their academic needs and occurs in a way that engages teachers and gains buy-in

(Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016). By providing teachers with the information and skills necessary to identify and support students with mental health needs, there is a potential for teachers to gain a greater sense of self-efficacy that allows for further engagement in understanding student mental health needs (Froese-Germain & Riel, 2012). The increase in teacher awareness and knowledge may increase earlier identification of students displaying mental health needs.

With symptoms of mental health disorders frequently appearing for the first time in secondary school-aged students, supports focused on identifying early signs of mental health before their academic progress becomes considerably impacted are critically needed for adolescent populations (Kessler et al., 2005). Professional development opportunities are a leading strategy to provide teachers with current information supporting student performance in the classroom (Momanyi, 2012).

Theoretical Framework

The theoretical framework guiding the TEACH Mental Health Literacy Curriculum intervention is Mezirow's (1978) transformation theory. Transformative learning examines how adult views form from the narrow collection of experiences they have had in their lives. Mezirow's (1991) transformation learning theory identifies ten phases that contribute to transformative learning that may or may not all need to be undergone by the learner to experience transformation. The phases identified by Mezirow include: (a) a disorienting dilemma; (b) self-examination of assumptions; (c) critical reflection on assumptions; (d) recognition of dissatisfaction; (e) exploration of alternatives; (f) plan for action; (g) acquisition of new knowledge; (h) experimentation with roles; (i) competence building; and (j) reintegration of new perspectives into one’s life (Mezirow, 1991). However, for purposes of this study, the

examination of transformative learning will include the use of Nerstrom's (2014) Transformative Learning Model (see Figure 3.1). Inspiration for Nerstrom's Transformative Learning Model comes from Mezirow's (1978) phases of transformative learning and simplifies Mezirow's ten-phase theory into four parts. Nerstrom's (2014) Transformative Learning Model presents transformative learning as occurring in a sequential order where the learner experiences each model phase. The four phases included in Nerstrom's (2014) model are: (a) having experiences; (b) making assumptions; (c) challenging perspectives; (d) experiencing transformative learning. Nerstrom's (2014) Transformative Learning Model builds on Mezirow's (1978) transformation learning theory and provides a simplified framework to examine participants' transformative learning in the TEACH Mental Health Literacy Curriculum.

The limitations of adult views often lead to personal truths that are not always accurate (Nerstrom, 2014). However, when adults receive opportunities to expand their understanding of a topic, question standing beliefs, and gain new outlooks that expand their previous views, transformative learning has occurred (Nerstrom, 2014). Occurrences that inform transformative learning can take place suddenly through the experience of a significant life event or can occur through a series of ordinary events, such as professional development, which conclude with a change in personal views (Mezirow, 1991). Transformation theory is a common framework used to examine how professional development can shape educators into becoming authentic, individuated, and critically reflective practitioners (Cranton & King, 2003).

A Needs Assessment Investigation

As the result of a change in pedagogical practices to meet the increasing need of students displaying signs of duress in the education setting, the anticipation for teachers to take on a role that meets the need of adolescent mental health concerns has emerged (Pullmann, Bruns, Daly,

& Sander, 2013). The increase in mental health disorders affecting adolescents has created an environment where schools have become a viable source to recognize and provide students access to mental health services (Weist & Paternite, 2006). However, symptoms of mental health disorders appearing for the first time in secondary school-aged students (12-18 years old) within the school setting go unidentified when intervention is most critical to their long-term mental health success (Kessler et al., 2005). Survey responses collected during a needs assessment conducted with teachers (n=22) indicated that teachers desire additional information and training related to working with students with mental health disorders and that teachers are aware of their gaps in knowledge in how to best recognize and support student mental health needs (Eccleston, 2019).

Professional Development Intervention

Information from the intervention literature review demonstrates the following guidelines presented by Borko (2004) and Rakes, Bush, Ronau, Mohr-Schroeder, and Saderholm (2017) supporting the development of professional development (PD) program that will implicitly enhance teacher professional practice: (1) focusing the PD on developing teachers' knowledge of mental health; (2) providing teachers with opportunities to engage in active learning techniques; (3) making connections to teachers' specific professional role; and (4) provide PD that is more than three full professional days in length, well-organized and structured to offer optimal means to implicit change in teacher knowledge of, and attitude towards, mental health needs. The need to provide teachers with professional knowledge to improve students at risk for mental health needs and teacher's mental health is a growing concern in the education setting (Kidger et al., 2016). Providing teachers with the knowledge required to identify and support students experiencing mental health needs has been shown to improve staff-student relationships, improve

students' academic results, and increase teacher mental health well-being and job satisfaction (Kidger et al., 2016).

The intervention was designed to target teachers' current understanding of mental health and their attitudes towards individuals with mental health needs. The TEACH Mental Health Literacy program provides professional development training that applies active learning activities designed to increase educators' knowledge of mental health disorders, improve attitudes towards individuals with mental health needs, and improve their self-efficacy beliefs that impact their confidence in incorporating new instructional practices (Desimone et al., 2002; Garet et al., 2008). Interventions that support screening procedures have shown to improve teacher knowledge of mental health symptoms (Von Der Embse, Kilgus, Eklund, Ake, & Levi-Neilsen, 2018). Therefore, the intervention aimed to provide teachers with necessary information related to student mental health needs through professional development that outlines behaviors associated with adolescent mental health disorders and the steps necessary to provide identified students' support (Koller & Bertel, 2006). The intervention accounts for Borko's (2004) elements that contribute to successful professional development programming by considering teacher participants' engagement, using an already established intervention program and the intended way the virtual environment positively impacts participants by allowing flexibility.

Research Purpose and Objective

The needs assessment findings, in combination with the literature review, supports the need to provide teachers with knowledge related to adolescent mental health disorders and suggests the need to provide educators with mental health literacy training focused on increasing their knowledge of the topic and increasing their attitudes towards adolescent with mental health disorders (Kutcher & Wei, 2014). The purpose of this dissertation study is to facilitate the

development of teacher knowledge and attitudes towards mental health needs using an intervention focused on enhancing teachers' mental health literacy, employing the TEACH Mental Health Literacy Curriculum (Kutcher, Wei, McLuckie, & Bullock, 2013). The principal objective of The TEACH Mental Health Literacy Curriculum is for participants to shift their views of mental health through transformational learning that asks participants to reflect on how they create meaning out of the psychological and sociocultural factors they frequently experience. This researcher hypothesizes that teachers will develop greater knowledge and increase positive attitudes towards student mental health needs within the secondary school setting. However, because the outcomes related to student identification are distal, the current research study focused on teacher participant outcomes.

This research involved three process and two outcome research questions, as follows:

Process Research Questions:

RQ1: How do participants rate their level of overall engagement in the TEACH online professional development training?

RQ2: How many participants in a self-paced online professional development training completed the training in its entirety?

Outcome Research Questions:

RQ3: How does teachers' knowledge of mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?

RQ4: How do teachers' attitudes towards mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?

Research Design

This study used an embedded sequential design (Creswell & Plano Clark, 2011). Using a one-group, pre-post-test design, this researcher used a series of surveys to assess the intervention, identify participant responsiveness, and assess the application of treatment.

Intervention

The intervention targets teachers' current understanding of mental health and their attitudes towards individuals with mental health needs. Using a model established by Kutcher, Wei, McLuckie, and Bullock (2013), implementation of the TEACH Mental Health Literacy Curriculum consists of one introductory module and six self-paced professional development sessions. Determinations made during the intervention planning phase list the completion time of the TEACH Mental Health Literacy Curriculum to be approximately eight and one-half hours over a seven-week timespan. Time determinations were made by this researcher, with consideration given to participants' daily professional and personal obligations and the amount of information and activities included in each module. Overall participation included secondary teachers (N= 12) that engaged in a fully virtual professional development on adolescent mental health. The intervention consists of four primary components: (a) pre-test of mental health knowledge and attitude survey; (b) participation in the one introductory module and the six online curriculum modules; (c) post-test of mental health knowledge and attitude survey; and (d) overall satisfaction survey.

Data and Data Analysis

Measures consist of a 30-item confidential questionnaire designed to measure knowledge of mental health and mental disorders (Kutcher & Wei, 2014); the Devaluation of Consumer Families Scale (Struening et al., 2001); a confidential Overall Satisfaction Survey designed to

measure teacher satisfaction of their participation in a professional development training program; and a five-question demographic survey.

Findings

The quantitative and qualitative findings for the process evaluation question indicated an excellent internal consistency of measures ($\alpha = .97$) and that 68% of participants found the TEACH Mental Health Literacy Curriculum to be engaging. Findings related to the outcome research questions showed that participation in the TEACH Mental Health Literacy Curriculum resulted in increased participants' mental health knowledge and improved attitudes towards mental health. Treatment effect sizes were smaller than expected. A power analysis indicated that the study required a total sample size of $n = 74$ to achieve 80% power. However, only a total of 12 participants provided sufficient data adequate for analysis. Overall, this study's quantitative data showed that the TEACH Mental Health Literacy Curriculum could positively increase teacher knowledge and attitudes towards mental health. The qualitative findings indicate a high level of participant engagement in training.

This small, mixed-methods study provided an opportunity to create an intervention that could reach a large audience and provide critical information about mental health disorders. While the small sample size does not allow for a comprehensive evaluation of the study's effect on broadening participant knowledge of mental health and improving mental health attitudes. The study provides sufficient preliminary data to suggest that participation in the TEACH Mental Health Literacy Curriculum will increase mental health knowledge and improve individual attitudes towards mental health.

Chapter 1

Overview and Factors Related to the Problem of Practice

The increase in mental health disorders affecting adolescents has created an environment in which schools have become a viable source to recognize and provide students access to mental health services (Weist & Paternite, 2006). However, symptoms of mental health disorders appearing for the first time in secondary school-aged students (12-18 years old) within the school setting go unidentified at a time when intervention is most critical to their long-term mental health success (Kessler et al., 2005). One in five school-aged adolescents currently experiences a mental health illness: anxiety and depression are the two most prevalent disorders (Offner, 2018). The most common way for students with mental health needs to obtain additional supports and services is through Section 504 of the Rehabilitation Act of 1973 (Pub. L. No. 93-112, 87 Stat. 394) or an Individual Education Plan (IEP) (Offtner, 2018). However, 80% of students in need of mental health services will not receive support (Anderson, & Cardoza, 2016). The decline in intellectual impairment is a slow decrease that does not go addressed by teachers and school personnel until a student has become detrimentally impacted by their mental illness, and only then through special education services does a student receive support (George, Zaheer, Kern, & Evans, 2018). Private, separate day school placement is a support used by public settings for students with mental health needs and is a determination made by a student's school district to remain in compliance with the Free and Appropriate Public Education Act of 1975 (P.L. 94-142). The Free and Appropriate Public Education Act (FAPE) is an educational entitlement all students in the United States have, which is guaranteed by the Rehabilitation Act of 1973 (Pub. L. No. 93-112) and the Individuals with Disabilities Education Act (P.L. 94-142; U.S. Department of Education, Office for Civil Rights, 2010). A private placement is typically

implemented for students with mental health needs once they become eligible for special education services and after all the least restrictive environments have been exhausted (Carson, 2015). School systems may avoid tuition costs for private placements and the removal of students from a comprehensive setting with supports focused on early intervention for students displaying mental health needs.

Without a clear understanding of what student mental health is or looks like, stigmas associated with mental health symptoms often become a teacher's basis for fact (Frauenholtz et al., 2017). Gabbidon et al. (2013) explain mental health stigma as an overarching term, encompassing problems of misguided knowledge associated with mental illness, negative attitudes towards people with mental illness, and discriminatory behavior towards individuals with mental illness. To effectively combat the stigma associated with mental health disorders Corrigan and Penn (1999) promote the use of programming that provides individuals with descriptive and accurate information about what mental health disorders entail.

The U.S. Department of Education recently accepted the formal recognition for expanding more prevalent mental health recourses (S. 1177—114th Congress: Every Student Succeeds Act, 2015) with their call for schools to increase access to mental health services. With improved access to services available, the number of students seeking mental health care has grown (George, Zaheer, Kern, & Evans, 2018). Compared to school settings without access to mental health care, schools providing mental health resources and providers have reported increased student attendance and classroom participation. However, there is currently a lack of adequate funding to provide the level of supports required to provide impactful intervention (Larson, Spetz, Brindis, & Chapman, 2017).

The limited policy to govern mental health services in the school setting creates

additional barriers for students needing access to care. Despite recognition by The President's New Freedom Commission on Mental Health (2003) and the U.S. Department of Education (S. 1177—114th Congress: Every Student Succeeds Act, 2015) for attention to be placed on increasing awareness, intervention, and prevention of mental health needs in the school setting, detailed policies outlining protocols and procedures for states are not prevalent nationwide (George et al., 2018). Without a set structure of how schools should support mental health and provide direct services, many states have failed to adequately address the policies and commissions recommended by the President's New Freedom Commission on Mental Health (2003) and the U.S. Department of Education (Weist & Paternite, 2006).

Additionally, many teachers face challenges in identifying and supporting students exhibiting mental health needs due to limited training focused on student identification and supportive measures (Frauenholtz, Williford, & Mendenhall, 2015). Soares, Estanislau, Brietzke, Lefèvre, and Bressan (2014) suggest that teachers have a deficiency in understanding proper physiological functioning of the body concerning mental health, meaning that teachers struggle to understand why students respond and act a certain way. This gap in understanding creates insecurity and complicates teachers' ability to manage everyday situations involving mental disorders.

In addition to limited supports within the school setting, communication barriers are a contributing factor impacting student access to mental health services (Kelly, Rossen, & Cowan, 2017; Kramer, Vuppala, Lamps, Miller, & Thrush, 2006). Parents' concern about stigmas associated with their child at school has created a disconnect in information sharing between the home and school setting, despite evidence demonstrating a higher success rate for interventions when family and support members are actively involved (Kelly, Rossen, & Cowan, 2017;

Kramer et al., 2006). Despite parent reports of wanting schools to be aware of their child's needs, outside providers cannot share important information regarding a student's emotional well-being if a parent does not authorize a release of information (Kramer et al., 2006). The concern around perception and peer acceptance have created communication barriers among schools, parents, and providers, but research shows that schools can help break communication barriers by developing open and supportive collaborations with parents (Kelly, Rossen, & Cowan, 2017; Kramer et al., 2006).

Furthermore, teachers' roles and responsibilities have no definitive standard or clear parameters in relation to students' mental health (Frauenholtz, Mendenhall, & Moon, 2017). Teachers' view of their specific responsibilities often comes from individual factors and experiences (Phillippo & Stone, 2013). Some teachers define their role solely around their obligation to provide content knowledge (Phillippo & Stone 2013). At the same time, other teachers include supporting student mental health needs as part of their role (Andrews, McCabe, & Wideman-Johnston, 2014).

Problem of Practice

Approximately one in five American youths, aged 13–18 (21.4%), experience a severe mental disorder (National Alliance on Mental Illness, 2016). A mental health disorder is "a mental, behavioral, or emotional disorder resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities" (National Institutes of Health, 2016, p. 1). With symptoms of mental health disorders frequently appearing for the first time in secondary school-aged students, supports focused on identifying early signs of mental health before their academic progress becomes considerably impacted are critically needed for adolescent populations (Kessler et al., 2005). Factors associated with the delayed identification

of students with mental health needs include mental health stigmas, policies on mental health services in schools, teacher knowledge of mental health, parent-teacher communication barriers, and teacher perception of their role. Despite the display of mental health symptoms by students in schools, most students go unidentified when intervention is most critical (Kessler et al., 2005). The purpose of the literature synthesis below is to outline the manner in which policy, teacher role, stigma, communications, and teacher knowledge of mental health disorders impact the early identification of students displaying mental health needs in the school setting.

Theoretical Framework

Bronfenbrenner's first introduction of ecological systems theory (EST) in the 1970s, referred to as Phase 1, categorizes EST as four systems—the microsystem, mesosystem, exosystem, and macrosystem (Neal & Neal, 2013; Rosa & Tudge, 2013). The use of Bronfenbrenner's (1979) EST structural framework (see Figure 1.1) is vital to demonstrating the role mental health has on secondary student's achievement in the education setting. By applying EST as a networked model, research questions associated with mental health demonstrate the different impact ecological systems have on an individual's perception of and interaction with social experiences (Neal & Neal, 2013). The potential a networked model holds to emphasize the role one's environmental factors play on their behavior and development (Neal & Neal, 2013) is essential when examining the drivers associated with the problem's view of mental health needs within school settings.

To best use EST in understanding the problem associated with adolescents facing mental health issues in the school setting, the constructs related to the problem are categorized and explored within the EST level that aligns with the specific constructs area of impact on a student's life. The structure of the ecological system in this study holds the mesosystem as the

interactions between all of the individual's microsystems; the exosystem is the authoritative bodies influencing the individual's educational environment (e.g., school administration, superintendent, government officials); the macrosystem as the interactions among the individual's mesosystems which lead to social and cultural norms directly impacting the individual (e.g., school policies, initiatives, stigmas); and the chronosystem as the shifts in the individual's social interactions over time that create new ecological systems (Neal & Neal, 2013). Exploring the constructs of the problem of practice will occur within the various EST levels to best examine the factors contributing to the gap in identifying adolescents in need of mental health supports in the school setting.

Conceptual Framework

Bronfenbrenner's (1979) ecological systems theory (EST) provides the framework examining the constructs (see Figure 1.2) of stigma, policy, teacher knowledge of mental health, parent-teacher communication, and teacher perception of their role as factors contributing to the failure to recognize secondary students displaying mental health symptoms in the school setting (Frauenholtz, Mendenhall, & Moon, 2017; Gabbidon et al., 2013; Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010; Kramer et al., 2006; Weist & Paternite, 2006). The use of Bronfenbrenner's (1979) EST demonstrates how the constructs integrate into the different areas of a student's life involving mental health needs.

The first construct explored in the conceptual framework associated with recognizing secondary student mental health is stigma. As previously discussed, Gabbidon et al. (2013) define stigma related to mental health as an overarching term, encompassing problems of misguided knowledge associated with mental illness, negative attitudes towards people with mental illness, and discriminatory behavior towards individuals with mental illness. Stigma is

impactful at the student's macrosystem level and encompasses concerns related to cultural factors, public stigmas, and self-biases. Molloy et al. (2020) discuss how culture plays a critical role in how stigma manifests among varying demographics. Along with personal bias stemming from sociocultural factors, mental health stigma is often discriminatory and detrimental to those in need of support and intervention (Carr, Bhagwat, Miller, & Ponce, 2014). The factors contributing to stigma as a construct provide insight into the types of barriers in the education setting related to mental health needs.

Policy related to how mental health is being supported in the education setting is the second construct of interest within the conceptual framework. Policies focused on providing students access to mental health resources in the education setting both at the federal and state-level impact a student with mental health needs within their exosystem. Contradicting federal and state policies directed at supporting adolescent mental health needs has created a disconnect in actionable school policies, leaving a gap in procedures designed to help students with mental health needs. Guerra, Rajan, and Roberts (2019) point out that state-level policies meant to guide and inform school policies regarding mental health are often indistinct, leaving schools with uncertainties towards implementing mental health practices to support their student populations.

Teacher knowledge of mental health needs is the third construct within the conceptual framework, impacting students with mental health needs within their exosystem. Absent mental health training and teacher preparation programs that do not include information associated with adolescent mental health needs contribute to a gap in teacher knowledge of mental health in the education setting. A review by Anderson et al. (2018) examining current outcomes and trends of mental health training programs found that no definitive studies demonstrate mental health training programs' effectiveness. Findings by Anderson et al. (2018) come despite the increase in

mental health training programs at the secondary level to increase teacher knowledge and skill of adolescent mental health needs.

A student with mental health needs mesosystem holds the fourth and fifth constructs making up the conceptual framework. Parent-teacher communications directly impacted by parent discourse, teacher receptivity, and teacher availability address the gaps in parent-teacher communications that directly support students with mental health needs. The perspective of outside providers also provides insight into how parents-teacher communications gaps impact students' ability to access the mental health support they require in the school setting. Spratt, Shucksmith, Philip, and Watson (2006) relay that communications with parents/guardians are becoming an increasingly critical task for teachers related to student mental health needs. Open communications among parents/guardians and teachers hold the potential for an increase in social-emotional support that, when unaddressed, contributes to reduced mental health and actions that impact school performance (Martin, Tobin, & Sugai, 2003; Rigby, 2000).

Teachers' perception of their professional role is the final construct contributing to the conceptual framework. Personal attitudes towards mental health, clarity of teacher role, and teacher attitudes towards mental health contribute to the disconnect of having a clear understanding of teacher-specific responsibilities towards students displaying mental health needs. Within the construct, teacher attitudes towards mental health contribute to stigma and school culture, impacting teacher perception of their role. As student mental health needs become more prevalent in the classroom setting, the teacher's role is evolving to include supporting students' mental health concerns (Anderson et al., 2018; Pullmann, Bruns, Daly, & Sander, 2013).

Research supports concerns for adolescents experiencing mental health needs in the education setting and the potential for long-term impairments (Frauenholtz et al., 2017). Despite recognizing circumstances and presenting potential outliers, a paucity of data exists on addressing the problem contributing to unmet adolescent mental health needs in the school setting. This needs assessment aims to examine stigma, policy, teacher knowledge of mental health, parent-teacher communication, and teacher perception of their role to understand better the area most prevalent in impeding students with mental health disorders.

Synthesis of Literature Related to Student Mental Health Needs

Below is a synthesis of the literature outlining the contributing factors associated with secondary students' mental health needs in the school setting. The conceptual framework outlines the factors making up the constructs contributing to the problem, and along with Bronfenbrenner (1979), ecological systems theory (EST) represents the level of impact the presented construct has in association with a student's ecological system.

Stigma's Role in Recognizing Student's Mental Health: Macrosystem

Individuals diagnosed with mental illness continue to be unfavorably stigmatized by the public unfairly, despite increased awareness and efforts to educate the public by world-wide health organizations (Strassle, 2018). Research supporting mental health stigma education embedded in the classroom has produced successful results in reducing stigmas related to mental health in trials focused on college students but continues to be an area afforded minimal attention (Strassle, 2018). Stigma plays a significant role in the other drivers contributing to the lack of recognition of students' mental health needs. Recall Gabbidon et al.'s (2013) description of mental health stigma as an overarching term that encompasses issues of misguided knowledge associated with mental illness. Meaning that fear and misunderstandings associated with being

labeled as having mental health needs greatly contribute to individuals' stigma impacted by mental illness (Bowers, Manion, Papadopoulos, & Gauvreau, 2013). Stigma's existence within all aspects of an individual's life, including their family culture, school culture, ethnic culture, and national and international cultural, makes eliminating stigma impossible (Corrigan, 2005). Unfortunately, current research specific to teacher endorsement is limited. Research is improving but still very narrow in specific areas.

The role stigma plays in stereotyping, singling out, lowering one's status, and creating feelings of discrimination within a person with emotional difficulty creates barriers to understanding and addressing individuals in need of mental health supports (Link & Phelan, 2001). However, stigma is a very personal and individual concept, given that some individuals feel stigmatized when others do not (Mak, Poon, Pun, & Cheung, 2007). Mak et al. (2007) discuss how individual personality traits of those experiencing stigma, including coping skills, resiliency factors, and having a support network, can help reduce stigma in specific individuals. Unfortunately, there are inconsistencies in the structure of how each secondary school addresses stigma and views adolescent mental health in the context of the problem. Students displaying early signs of mood disorders and levels of anxiety often experience internalizing symptoms that are not easily identifiable to individuals unfamiliar with specific mental health disorders (Cross & Hickie, 2017; Eyre & Thapar, 2014). Furthermore, mental health disorders are commonly connected with cognitive impairments that contribute to academic decline. With many teachers not having the training or experience to connect the two, students are often inappropriately misplaced into classes and school programs that do not adequately meet their needs (Farrell & Barrett, 2007; Moon, Williford, & Mendenhall, 2017; Papandrea & Winefield, 2011).

Although the problem focuses explicitly on why individuals in authority are missing the signs of mental health needs in adolescence, understanding the role stigma plays on adolescents' perception of mental health is critical. The study by Davidson & Manion (1996) shows that 63% of adolescents actively avoid mental health support out of fear, embarrassment, and stigma. Additionally, 12% of the adolescents surveyed reported having no one they feel comfortable talking with or seeking support from if they were experiencing a need for help. The impact stigma has on student access to support is relevant given the critical role peers play in aiding each other in seeking and accessing services when they confide in one another (Davidson & Manion, 1996; Townsend et al., 2017). However, research conducted by Bowers et al. (2013) found that 71% of adolescents believe that their peers were not facing any social-emotional challenges and chose not to disclose their personal, social, and emotional needs with their peers.

Adolescents often face the concept of self-stigma, which involves the negative appraisal of one's own thoughts in relation to their emotional difficulty (Corrigan, 2005). In Corrigan's (2005) book, they discuss how feelings of shame often create views of social inadequacies and contribute to low self-esteem within an adolescent struggling with mental health needs. Social-cognitive models concerning stigma help demonstrate how negative evaluations of oneself become internalized through awareness of how society undesirably views individuals with emotional difficulties (Lannin, Vogel, Brenner, & Tucker, 2015).

Understanding the multiple facets of stigma is essential when considering the supports required to aid adolescent development. Individuals can become heavily impacted by the messages received within the large scale of their ecological system. Their learned personal biases can prevent them from forming personal views and opinions beyond societies' perceived norms (Iezzoni, 2018). Macrosystem factors such as economics, politics, and societal traditions

influence public expressions of stigma (Yang et al., 2007). The extensive system may not directly involve the individuals examined in the problem but can influence views within the subconscious when actions such as budget and service reductions to mental health supports occur (Yang et al., 2007).

Policy's Role in Recognizing Student's Mental Health: Exosystem

Unlike the mesosystem, which encapsulates every overarching factor leading to students experiencing mental health needs in the school setting, the exosystem represents the authoritative bodies influencing the educational environment (e.g., school administration, superintendent, government officials). The ecosystem's representation demonstrates how political decisions and determinations happening at a higher level contribute to unidentified students in need of mental health intervention (Weist & Paternite, 2006).

Policy. The idea of developing comprehensive mental health supports for adolescents in U.S. public schools is a concept that dates back to the early 20th century (Hunter as cited in Flaherty & Osher, 2003; Talbert, 1917; see also Weist & Paternite, 2006). However, Robinson (2004) and Weist, Evans, and Lever (2003) note that a movement towards recognizing mental health needs in school settings was not acknowledged nationally until late into the 20th century. Weist & Paternite (2006) discuss the recent trend in families, schools, and community stakeholders voicing their support for programs addressing schools' mental health needs. However, despite the newfound recognition and support, most mental health approaches promoted by government initiatives are not structured to accomplish what experts in the field see as needed care (Weist & Paternite, 2006).

Federal policy action. The President's New Freedom Commission on Mental Health (2003) brought attention to the unmet needs and barriers associated with school-based mental

health care, including current gaps in research and data collection procedures and the concern over the weak national priority of mental health and suicide prevention. Findings from the commission included data that found 46% of individuals who did not complete high school often had an undiagnosed mental health condition, and less than 30% of individuals requiring mental health treatment sought necessary care (Kessler et al., 2001; Regier et al., 1993; Stoep, Weiss, Kuo, Cheney, & Cohen, 2003). The President's New Freedom Commission on Mental Health (2003) presented a proposal to improve and expand school mental health programs. The 2004 American Academy of Pediatrics Policy Statement on School-Based Mental Health Services (Committee on School Health, 2004) echoed the President's proposal call by demonstrating the potential school-based programs have towards improving access to services for students facing mental health concerns. The improvement and coordination of current service limitations through educational partnerships would prevent more significant mental health concerns from occurring later in students' lives (Committee on School Health, 2004). Using reports from providers and students, Nabors and Reynolds (2000) found that existing supports within the school setting in the form of providers and unique programming tailored towards mental health awareness reduced the stigma associated with seeking help for mental health needs. However, despite the U.S. Government's realizations towards the importance of mental health awareness, minimal movement has been made in introducing specific policies, laws, and reforms that support adolescent mental health needs in the education setting due to federalism (Weist & Paternite, 2006).

State policy action. Federalism is a states' right to hold local control over policies and laws (Hermann & Rollins, 2003). However, a state's ability to set the terms around systems such as education has provided states' and local governing bodies significant flexibility in the state's

level of services to fulfill federal requirements (Weist & Paternite, 2006). States' allowance to determine their protocols and procedures for mandates promulgated by the government creates unbalanced school policies related to school-based mental health programming nationwide (Weist & Paternite, 2006).

Teacher Knowledge of Mental Health: Exosystem

With undefined parameters of how to best incorporate mental health services in the school setting, both within states and nationwide, no structured system for providing educators with a knowledge base of mental health currently exists (Weist & Paternite, 2006). Adolescents experiencing mental health disorders are at a pointedly higher risk for adverse educational outcomes than peers not impacted by mental health needs (Frauenholtz et al., 2017). The school setting is the primary environment linking an adolescent's home and community life. Still, teachers are often not provided the information needed to recognize and support students exhibiting signs of mental distress (Frauenholtz et al., 2017). A study conducted by Frauenholtz et al. (2017) determined five themes contributing to gaps in teacher knowledge of mental health, which include: limited understanding of symptoms; intervention methods; effects of psychotropic medications; stigma; and available mental health services. Findings from a focus group of teachers (N = 17) conducted by Frauenholtz et al. (2015) suggests that teachers perceive a lack of training, prioritization by their school's administration, and limited discussion within teacher preparation courses as the main factors contributing to their reduced knowledge of adolescent mental health needs. Similar studies cite teacher's lack of confidence, limited knowledge, and absence of skills related to navigating mental health disorders as the reasoning behind teachers' declined understanding of adolescent mental health needs (Hadlaczky, Hökby, Mkrtchian, Carli, & Wasserman, 2014; Kitchener & Jorm, 2006). The emphasis placed on the

education settings ability to reduce mental health distress in the President's New Freedom Commission on Mental Health (2003) suggests the need for programs tailored to raising awareness and increasing knowledge of mental health among school personnel as an area of significant need (Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010).

Parent-Teacher Communication Impact on Student Mental Health: Mesosystem

In a survey conducted by Andrews (1991), parents expressed wanting schools to be aware of their child's health needs. Additionally, parents view outside mental health providers as the most appropriate individual to address their child's needs in the school setting. Like Andrews (1991), Kramer et al.'s (2006) study found that most parents believe it is vital for the school setting to be aware when their adolescent child is receiving treatment for a social-emotional disorder. Parents also expressed that schools should be made aware of the details of their child's treatment plan but limit transparency once the information specifically involves the family or confidential exchanges with mental health professionals during therapy visits (Kramer et al., 2006).

Despite Andrews's (1991) survey specifically looking at information sharing concerning students with chronic illness, research shows that when the medical condition became one associated with stigma, parental views shifted and were not as open to information sharing (Corrigan et al., 2000). Furthermore, if a parent has experienced adverse reactions regarding their child's mental health needs, they are more likely to be reluctant to share information (Kramer et al., 2006). However, providers rely on collaborative efforts to develop an effective treatment plan and regularly seek input from teachers when investigating factors associated with a potential diagnosis (Dulcan & Benson as cited in Kramer et al., 2006).

Collaborative communications stem from the agreement of an environment that fosters open support (Jeon & Ha, 2016). Kramer et al.'s (2006) examination of communication methods found communication regarding student needs in the academic setting to be a barrier to productive collaborations between parents and teachers. The majority of parents expressed wanting documentation of their child's health concerns to be delivered in writing or shared in person (Notaras et al., 2002). However, schools are not mandated to provide communications beyond their standard practice (Kramer et al., 2006). The absence of discussion between parents and teachers to determine preferred communication methods contributes to scenarios where a school may hold a negative perception or lack of understanding towards a student's treatment plan (Kramer et al., 2006). Additionally, some parents note their preference for no one or limited school personnel to be made aware of their child's mental health needs, placing a strain on collaborative efforts necessary to support the student later (Kramer et al., 2006).

Outside provider. The role of community mental health professionals is small but contributes to understanding the problem associated with unrecognized mental health concerns in secondary school students. Several research studies have discussed ongoing concerns frequently expressed by community mental health providers. Providers commonly express a lack of mental health knowledge possessed by school staff as obstruction of collaborative efforts made to engage the school team in intervention efforts (Reinke et al.; Walter et al.; as cited in Frauenholtz et al., 2017). However, regulations under the Family Educational Rights and Privacy Act (FERPA; 20 U.S.C. § 1232g; 34 CFR Part 99) and the Health Insurance Portability and the Accountability Act of 1996 (HIPAA; P.L. 104-191) intended to protect the privacy of a student's educational record, as well as the security of individually identifiable health information, creates barriers for open communication (U.S. Department of Health and Human Services, 2008).

Without parental consent, both the school and outside providers cannot speak with one another regarding information related to an adolescent's health care, resulting in uninformed decision-making from both the teacher and the provider regarding supportive care. The lack of communication between teachers and providers places a significant emphasis on the importance of parent-teacher communications.

Teacher Perception of Role in Recognizing Student's Mental Health: Mesosystem

Student-teacher relationships promote student resiliency in the education setting by providing the skills needed to manage overpowering mental health symptoms with tools that will allow them to successfully navigate mental health challenges (Burwell, 2018; Phillippo & Stone, 2013). However, the uncertainty in what a teacher's role represents in the U.S. has created unclear expectations regarding a teacher's role in providing students support during instances of academic or personal need (Phillippo & Stone, 2013). In a 2007 survey, Grossman et al. (2007) found that teacher education does not provide the same level of relational skill-building support that other service professions programs do. Although most teachers do not receive training to provide support beyond academics, Phillippo and Stone's (2013) study examining the breadth of the teacher role found that many teachers choose to nurture their students regardless. Research literature examining studies focusing on the educator's professional role has described the teacher role as one involved in knowledge sharing, management, and content delivery: as well as the idea of building relationships to support student learning, but not as a way to concern ourselves with their mental health needs (Mahlios, 2002; Venet, 2019). Without any references made to words such as support or counselor, one can infer why some teachers may not see students' social-emotional needs as part of their classroom role. However, Phillippo and Stone (2013)

emphasize in their research the positive impact a teacher's support has on student achievement through outcomes associated with student grade achievement.

Conclusion

Bronfenbrenner's (1979) chronosystem introduces the idea that everything impacting a child's ecological system has the potential to change over time as a result of alterations within each system. Currently, a projected one in five children and adolescents in the U.S. have a mental illness (Odar, Canter, & Roberts, 2013). However, significantly more children and adolescents who do not have a diagnosis but are impacted by mental health are attending school without adequate services. By law, every school-aged child (five to 18 years) must attend school, making the school setting the most appropriate environment to place supports and services that address student mental health needs and provide interventions to decrease long-term impacts (Lendrum, Humphrey, & Wigelsworth, 2013). Furthermore, schools are obligated to provide support for students whose academic success is hindered by mental health needs (Paternite, 2005). Schools have always had the challenge of providing students with an education that would allow them to develop into responsible and productive members of society, and with that challenge comes the ability to provide the social and emotional learning required for our students to be successful (Paternite, 2005). By having the ability to recognize and respond to students displaying mental health needs during the early stages of symptom onset, educators have the potential to impact the student's chronosystem positively.

Mental health stigma, mental health program policies in schools, teacher knowledge of mental health, parent-teacher communications, and teachers' perceived professional roles contribute to teachers' lack of recognition towards students displaying mental health needs. Stigma related to this study is a personal and individual concept (Mak et al., 2007). Given that

individuals are greatly impacted by the messages they perceive, both self and public stigma can be easily formed from uninformed contexts and cause detrimental impacts. Policy specific to the inclusion of mental health programming at the school level has been found to be inadequate and absent by the President's New Freedom Commission on Mental Health in 2003. However, Weist and Paternite (2006) clarify that minimal movement towards the emphasis of mental health awareness has occurred within school settings. Additionally, teacher knowledge of mental health and the limited information or training that has been made available to teachers contributes to ongoing concerns associated with stigma and student identification (Frauenholtz et al., 2015). Communications between parents and teachers are often inconsistent or absent and can create gaps in teacher's understanding or knowing about students with mental health treatment plans (Kramer et al., 2006). The final factor relating to students' under-identification with mental health needs relates to how teachers perceive the scope of their professional roles. Given that there is no clear guidance on how teachers are expected to interact with students outside of their curriculum obligations, many teachers are unsure of or do not feel obligated to support students' personal needs (Phillippo & Stone, 2013).

Further exploration of the prevalence of these factors in the education setting will take place in Chapter Three. Participants will include parents, outside providers, and students familiar with the problem: and have insight from teachers with various roles and levels of experience. A needs assessment will help identify significant areas related to the problem and further shape this study.

Chapter 2

Identification of Mental Health Concerns in The Secondary Setting

The purpose of this needs assessment is to present findings that inform how secondary students displaying symptoms of mental health needs go unidentified in school classroom settings. This investigation sought to answer research questions related to gaps in the early recognition of students displaying unaddressed mental health symptoms in the secondary school setting. The research focused on five factors: stigma associated with mental health, policies currently impacting mental health care in the school setting, teacher knowledge of mental health, parent-teacher communications, and teachers' perceived professional role (Centers for Disease Control and Prevention, 2017; Gabbidon et al., 2013; Kramer, Vuppala, Lamps, Miller & Thrush, 2006; Phillippo & Stone, 2013; Soares, Estanislau, Brietzke, Lefèvre & Bressan, 2014; Thornicroft, Rose, Kassam & Sartorius, 2007; Vickers & Minke,1995; Weist & Paternite, 2006). Following a description of the study's context, a summary of the methodology provides the framework for the needs assessment and includes a description of the participants, variables, instrumentation, and the data collection and analysis methods. A concluding summary addresses the research questions findings related to the factors presented in the Literature Review.

Context of Study

The needs assessment study took place within an affluent and diverse east coast suburban public school system. For this study's purposes, the school district examined will use East Coast Public Schools (ECPS) as its pseudonym. According to the county's website, the school system serves over 162,680 students across 206 primary and secondary school settings (Niche, 2019). One of the county's high schools (grades 9th through 12th) provides the only special education program in the region, focused on providing specific supports to students' social-emotional

needs. According to the program's brochure, the Enhanced-Social Emotional Special Education Services (E-SESES) program "creates a learning environment that meets the unique and individual needs of students impacted academically and socially due to a mental health diagnosis" (Eccleston, 2018). Students in the E-SESES program receive individualized programming in a self-contained environment with direct access to clinical mental health support.

Students eligible for the program qualify for special education services under an emotional disability code and are impacted academically due to periods of school avoidance or hospitalization. The E-SESES program data reports that 88% of students receiving supports in the program became eligible for special education services between 6th and 12th grade. Of the students identified for services in the secondary setting, 51% were not eligible for special education services until high school. The U.S. Department of Education's 2011 child count data showed the average grade a student is found eligible for special education services as third grade (DoE, 2011). Therefore, there is a gap in identifying students having an emotional/learning disability in the E-SESES program compared to the national averages. This needs assessment looks to examine the gap through its five identified factors.

Students within the E-SESES program present with significant mental health symptoms during their secondary school years, along with potential histories of hospitalizations related to mental health, school avoidance, gaps in mental health care, self-harm, and suicidal ideation (Eccleston, 2018). At the time of this study, the E-SESES program serves 48 students in total. Of the total population, 59% are female, and 41% are male. The students' racial breakdown in the program is 52% Caucasian; 21% Hispanic/Latino; 14% African American; 11% Asian; and 2% Other. Student demographics within the E-SESES program align with that of the East Coast

Public Schools district (see Table 2.2) overall and demonstrate the non-discriminatory impact of mental health (Eccleston, 2018; MCPS 2019). Of the students in the E-SESES program, 87% receive outside services from providers explicitly addressing mental health needs (Eccleston, 2018). Parents of students in the E-SESES program had reported concerns with the lack of mental health services in their child's previous school and the amount of time needed before their child was found eligible and provided with special education services (Eccleston, 2018). With symptoms of mental health disorders frequently appearing for the first time in secondary school-aged students, supports focused on identifying early signs of mental health before their academic progress becomes significantly impacted is critically needed for adolescent populations (Kessler et al., 2005).

Purpose of Study and Research Questions

The purpose of this needs assessment study is to investigate factors contributing to students in the secondary setting who go unrecognized, requiring academic and social-emotional support to address mental health factors impeding the learning process. Furthermore, this study examined to what extent mental health stigma, policies regarding mental health, teacher knowledge of mental health disorders, parent-teacher communications, and the teacher's perceived role impact secondary students' mental health needs. The assessment's primary goal was to gain insight into the relationship between those factors and teachers recognizing students' mental health needs.

Research questions focus on understanding mental health by examining how stigma impacts this problem if current policies contribute to or address mental health concerns, how parents and teachers see a teacher's role and the teacher's perspective of their professional role concerning student mental health needs. Data from the needs assessment, feedback from

teachers, outside mental health providers, parents, and student focus group was collected and analyzed to answer the emerging questions.

Rational

The purpose of this study is to gain a greater understanding of how and why secondary students displaying symptoms of mental health needs continue to go unrecognized in school settings. Research demonstrates a reduced need for intensive mental health services for students identified during the first signs of symptoms, making early identification methods essential to long-term mental health success (George, Zaheer, Kern, & Evans, 2018). Thus, this study seeks to determine the impact school factors related to recognizing secondary students' mental stress (stigma, policy, teacher knowledge of mental health disorders, parent-teacher communications, and perceived teacher role) have on the early identification of secondary students. Data collection will occur using a mixed method of surveys, questionnaires, and a focus group interview concentrating on the problem's constructs.

Research Questions

RQ1. What impacts do mental health stigmas have on the accessibility of services in the school setting?

RQ2. What information are teachers being provided in regards to adolescent mental health as part of their professional development?

RQ3. What do parents, outside providers, and students view as the role and responsibility of teachers and schools towards student mental health needs?

RQ4. What do teachers perceive to be their obligation to recognize and understand mental health issues?

Method

Research Design

A convergent parallel design was implemented using quantitative surveys/questionnaires and qualitative focus group interviews to investigate factors contributing to the lack of recognition of student mental health needs in the secondary education setting (Creswell, Klassen, Plano Clark, & Smith, 2011). The validity of the study's data was established through an integrated analysis using triangulation to examine the quantitative and qualitative data outcomes (Campbell & Fiske, 1959). Reliability of the quantitative and qualitative data was determined using internal consistency by applying Cronbach's alpha. Consistency occurred throughout the qualitative data's coding scheme (Hsieh & Shannon, 2005).

Participants

Participants consist of a convenience sample of secondary teachers, parents of secondary students, secondary students (18 years of age and older), and community support providers such as clinicians and education advocates (see Appendix A). The sample included 43 participants, comprised of five groups participating in surveys, questionnaires, interviews, or a combination of methods. Participant groups include secondary general education teachers and four special educators (n=24), one parent group of mixed middle and high school-aged students (n=9), one student group comprised of high school students ages 18 years or older (n=5), one group of mental health providers (n=4), and one group of education advocates (n=1).

Recruitment of teachers, students, and mental health providers occurred through e-mail communications with contacts within the East Coast Public Schools district. Parent groups and education advocates were accessed through the Weinfeld Education Group, serving parents of students with special needs. The special education experts at the Weinfeld Education Group

work collaboratively with professionals to design and review individualized plans (Weinfeld Education Group, 2015). All participants signed a consent form (see Appendix B) or made a verbal recorded statement (see Appendix C) acknowledging their understanding of voluntary participation and their right to drop out at any time. All work with students occurred with those 18 years or older and have agreed to participate in the study. Outside providers have experience working with adolescents ages 12-21 years of age impacted by a mental health diagnosis. There are no other exclusion criteria.

Instruments

Seven instruments in this needs assessment study was employed to collect quantitative and qualitative information to support the existence of the problem and the associated drivers: a communications survey, a mental health attitude survey, teacher role questionnaire, teacher mental health knowledge questionnaire, de-identified data from a 2016 nationwide school survey, and a focus group centered on student perceptions related to mental health in the classroom setting.

Parent-teacher communications survey. The parent-teacher communications survey (see Appendix D) designed by Vickers and Minke (1995) asked 24 questions to gain an understanding of how parents view their relationship between themselves and their child's teacher (see Table 2.4). The survey used a five-point Likert scale (almost never, once in a while, sometimes, frequently, almost always) to score each item. Parent participants answered the provided questions by keeping one specific teacher in mind. Items in the survey did not go under any modification from their original text. The study's parents received Vickers and Minke's (1995) survey via a Google Form, which took approximately seven minutes to complete.

Statements provided to parents included topics related to respect and feelings: "We see my child differently," or "I expect more from this teacher than I get" (Vickers & Minke, 1995).

The Mental Illness: Clinicians' Attitudes (MICA) v4. The Mental Illness: Clinicians' Attitudes (MICA) v4 scale (see Appendix E) was created at King's College London as part of the Health Services and Population Research Department, Institute of Psychiatry. Using a Google form, teachers and outside providers submitted data related to mental health stigmas (see Table 1). The reliability and validity of the MICA-4 were tested using a secondary analysis from a randomized controlled trial and resulted in consistency among total item comparisons. The scale included 11 questions and took approximately three minutes to complete. The Mental Illness Clinicians' Attitudes scale (MICA v2) was assessed using Chronbach's alpha and found to be a reliable measure of collecting data associated with attitudes (Gabbidon et al., 2013). The survey's modification included variation from a seven-point Likert scale to use a five-point Likert scale (Strongly Disagree, Disagree, On Occasion, Agree, Strongly Agree). The decision to alter the survey allowed for a more precise focus of participant's views and opinions. Participants responded to questions related to scenarios associated with mental illness: "People with a severe mental illness can never recover enough to have a good quality of life" (Gabbidon et al., 2013).

Open-ended questionnaire of teacher responsibility from the teacher's perspective. Teachers received an open-ended questionnaire (see Appendix F) via Google form that sought their perspective on teacher responsibility (see Table 2.6, Lauermann, 2014). Lauermann (2014) created the teacher responsibility survey for anonymity with the idea of gaining a strong sense of teacher perspective on matters related to their position if their identity was secure. The survey was analyzed using a qualitative method using two coding cycles to identify commonalities among participants' responses. A modified version of the survey was provided to teachers and

should not have taken more than six minutes to complete. Modifications to the survey questions took place to focus on the questions associated with teacher perceived responsibilities. Questions were designed to provide information on how teachers relate to student's social-emotional needs: "List up to five things/activities for which you feel most responsible as a teacher?" (Lauermann, 2014).

Discourse of the Collective Subject (DCS). Lefevre and Lefevre's (2014) Discourse of the Collective Subject (DCS) is an open-ended questionnaire (see Appendix G) designed to collect social depictions for the purpose of studying one's opinion of a particular topic. Lefevre and Lefevre (2014) discuss using the DCS as a tool that allows researchers to gain information specific to social representations. Social representations are constructed by collecting individuals' opinions to create a big picture in relation to a particular social problem (Lefevre and Lefevre, 2014). Access to information related to social representations allows for the application of information specific to social action interventions (Lefevre & Lefevre, 2014). Researchers developed the DCS using an empirical study to create questions reflective of social representations (Lefevre & Lefevre, 2014). Teachers were provided the DCS-7 as an open-ended questionnaire via Google forms to determine their level of mental health knowledge and awareness (see Table 2.8). The modified questionnaire should not have taken participants more than six minutes to complete and included a prompt asking: "In your opinion, what is mental health?" (Lefever & Lefever, 2014).

Teacher Role and Responsibilities Survey for Parent(s)/Outside Provider(s). The self-made Teacher Role and Responsibilities Survey (see Appendix H) asked 12 questions directed towards parents and outside providers and was designed to understand their view towards teacher involvement of mental health concerns in the classroom (see Table 2.6). Parents

and outside providers accessed the survey via a Google form. Scoring of the survey items occurred using a five-point Likert scale (Strongly Disagree, Disagree, On Occasion, Agree, Strongly Agree). Repeated multivariate analysis of variance occurred to determine the differences between teacher responsibility and teacher role (Lauermann, 2014). The scale took approximately eight minutes to complete. Participants responded to statements related to scenarios associated with their perception of the teacher and school responsibilities towards mental illness: "I feel teachers have a role in supporting students with mental health needs?"

Interview protocols. Student interview questions (see Appendix I) took place via a focus group defined by Krueger (1994) as a "collaborative group working to identify common terminology for emotions and perspectives which often differ from individual to individual" (p. 19). Participants in this focus group have common traits related to mental health needs in the school setting (O'Leary, 2018). Students 18 years of age and older met with the interviewer for no more than one hour to discuss their experiences related to mental health needs in the classroom. Evaluation of ethical considerations regarding student participation occurred before the group discussion. Students received a list of questions to review before the session. Questions were kept broad to allow for an open-ended response from students. Based on Krueger's (1994) recommendations, the interviewer used multiple data collection options that included the combination of taped-based analysis, a debriefing session, and the use of summary comments collected after the focus group to analyze findings. Records of central ideas or emerging themes occurred on a large sticky pad to clarify identified concerns during the interview process (O'Leary, 2018). Questions included: "What do you wish your teachers did differently when you first started to show signs of dealing with mental health concerns?" (see Appendix J).

School Health Policies and Practices Study (SHPPS). Data from the Centers for Disease Control and Prevention (CDC; 2017), 2016 School Health Policies and Practices Study (SHPPS, see Appendix K) provided findings associated with mental health policies in the school setting. The CDC performed the study through a contract with ICF Macro, Inc., an ICF Company. SHPPS (2016) focused on seven school wellness areas using a nationally representative sample of public-school districts (Centers for Disease Control and Prevention, 2017). Of the components examined: counseling, psychological, healthy, and safe school environment (including social and emotional climate), and physical school environment was among the areas of focus. Data were collected using a web-based survey system to deliver three questionnaires categorized by Health Education, Physical Education and Physical Activity, and Healthy and Safe School Environment. Editing of the SHPPS (2016) data occurred to exclude erroneous items not relevant to the problem.

Procedure

Participant Recruitment. Recruitment of teacher participants took place through school East Coast Public Schools e-mail invites extended to all secondary teachers, which is approximately 8,509 employees at both the middle and high school level. A request for teacher participants to share the survey with colleagues was in the recruitment e-mail with the hopes of gaining more participants and diverse perspectives. Students recruited to participate in the study were part of the Enhanced-Social Emotional Special Education Services (E-SESES) program. Of the students recruited for the study, eight students were over the age of 18 and eligible to participate. Of the eight eligible students, five students chose to participate in the study. Their educational experiences determined the selection of students participating in the survey as one not identified as requiring mental health services in the school setting when they first started to

show symptoms. Recruitment of outside providers took place using e-mails to the Weinfeld Education Group and through a series of e-mails with connections working as providers in the mental health field. The number of total invites to outside providers is unknown, given that participants also shared the opportunity to participate in the study with other potential participants. Recruitment of parent/guardian groups came from a pool of 50 current and past parents of students that attended the E-SESES Program. All participants were required to sign a consent form or make a verbal recorded statement acknowledging their understanding of voluntary participation and their right to drop out at any time.

Data collection. Application of surveys, questionnaires collecting quantitative and qualitative data, and focus group interviews took place to collect data examining teacher knowledge of mental health; parent, outside provider, and teacher perception of an educator's role; mental health stigma; home-school communications; and policies related to mental health. Selected surveys and questionnaires have been modified at times from their source to address time limitations and discard irrelevant questions. The instruments' validity remains despite modifications made to the questions, given that the changes did not jeopardize the content validity of the survey. Parents, outside providers, and teachers participating in the study accessed the surveys and questionnaires via Google forms. Participant responses provided data regarding teacher knowledge of mental health, teacher perception of their role, home-school communications, and mental health stigmas.

A focus group interview was conducted with students 18 years of age or older to remain within the limitations set by the IRB in place during the needs assessment process. The students participating in the focus group have been diagnosed with a mental health condition and did not receive school support when their symptoms first emerged. The schools did not identify them

until their disability impacted their academic performance enough to require special education services. The focus group interview provides data related to teacher role, stigma, and student perception on supports they feel could have prevented their need for extensive services. Data collected during the SHPPS (2016) survey provides information about school mental health policy outcomes and how current supports impact the problem.

Data analysis. Examination of the quantitative data collected within the study occurred through descriptive statistics calculated using SPSS software. Review of ordinal data took place through the calculation of the median and Inter-Quartile Range (IQR) of each item in the Subscale Parent-Teacher Relationship Scale-Parent Version, and Teacher Role, The Mental Illness: Clinicians' Attitudes (MICA) v4., and the Responsibilities Survey for Parent(s)/Outside Provider(s) to determine the central tendency and measure of spread amongst each participant. Evaluation of qualitative data consisting of responses from the Responsibility from the Teacher's Perspective and the Discourse of the Collective Subject (DCS) took place using conventional content analysis. A review of the focus group interview with E-SESES students also took place using conventional content analysis. Identification of salient themes took place using a spreadsheet system specific to examining open-ended responses created by Hotjar, a company aimed at providing user-friendly analytic tools. The aim of analyzing the qualitative data using Grenier's (2018) Hotjar analytical system was to gain insight into emergent themes embedded within participant responses that would highlight need areas. The analytical spreadsheet supported creating a qualitative code book to organize the open-ended data collected through teacher participant questionnaires. To ensure anonymity, the removal of participants identifying factors took place before data analysis.

Results

Organization of the findings from the needs assessment occurs through the research question specific to each construct. Data from parents, teachers, outside providers, and students provided the information necessary to touch on each research question and provided the insight required to investigate the problem further.

Research Question One

Teacher attitudes towards mental health and current state and federal policies actively addressing mental health needs in the education setting provide insight into the determination of barriers contributing to the accessibility of services in the school setting due to mental health stigmas. Exploration of the data from teacher participant responses and the Centers for Disease Control and Prevention (CDC; 2017), 2016 School Health Policies and Practices Study (SHPPS) support the findings below.

Teacher attitude towards mental health. The administration of The Mental Illness: Clinicians' Attitudes (MICA) v4 scale took place to examine teacher participants' (n=24) attitudes towards mental health. Using a five-point Likert scale (Almost Never, Once in a While, Sometimes, Frequently, Almost Always), teacher participants responded to questions associated with mental health. The calculation of each question's mean and standard deviation occurred using the MICA outcomes (see Table 2.8) data. Determinations made from the data demonstrate that teacher participants (n=22) "frequently" see themselves as being understanding and respectful to individuals with mental health needs. However, when participants were asked to rate their response to the question, "The public does not need to be protected from people with a severe mental illness," results demonstrate that teachers (n=23) display a level of discomfort in terms of feeling safe around individuals with mental health disorders (M=2.22, SD=1.16).

Policy Impacts of Mental Health

Current data from the Centers for Disease Control and Prevention (CDC; 2017), 2016 School Health Policies and Practices Study (SHPPS) examines the role stigma plays on student access to mental health services within the school setting**.** Examination of the SHPPS (2016) data shows an overall decrease in school systems' use of resources that support mental health needs in the education setting. Despite trends in school data, demonstrating the percentage of districts with specific health services has increased in suicide prevention efforts from 9.6% in 2012 to 19.9% in 2016. The majority of the presented data does not reflect practices aligned with what one would expect from school systems looking to implement procedures aligned with new federal initiatives. Data examples include a decrease in student support teams from 80.1% in 2012 to 69.4% in 2016; a reduction in counselor to student ratios at the high school level from 32% in 2012 to 19.8% in 2016; and a decrease in credential requirements for school counselors needing to have an advance degree from 70.7% in 2012 to 53.7% in 2016. District-wide initiatives aimed at teacher mental health and wellbeing have increased from 15.7% in 2012 to 30.6% in 2016, despite the decrease in programs aimed at supporting student mental health needs from 60.7% in 2012 to 47.2% in 2016. Additionally, the Department of Education's use of materials to create crisis response plans has also decreased from 73.8% in 2012 to 71.8% in 2016. Overall, data suggest that a reduction in the majority of policies and procedures aimed at student well-being has occurred. Findings from this data are contradictory to the call for an increase in services by the federal government.

Research Question Two

Teacher knowledge of mental health. Teacher participants completed the Outcome of Discourse of the Collective Subject (DCS) on Teacher Knowledge of Mental Health (see Table

2.7), an open-ended questionnaire to determine mental health knowledge level. The survey sought to answer whether "teachers receive critical knowledge determined by experts in the psychiatric profession about adolescent mental health as part of their professional development"? The open-ended questionnaire comes from Lefevre and Lefevre's (2014) Discourse of the Collective Subject (DCS), designed to collect social depictions of how teachers view mental health. With the use of a word frequency tool, patterns were identified within the teacher responses to each question and entered into an analysis tool created by Grenier (2018) to track the frequency in which teachers had similar keywords in their responses. Data outcomes (see Table 2.8) demonstrate that teachers experience a higher discomfort level when examining their safety in relation to an individual with a mental health disorder (M=2.22, SD=1.16).

Research Question Three

Parent/guardians, outside providers, and student data sought to answer, "what do guardians, outside providers, and students view as the role and responsibility of teachers towards their child's/patient's mental health needs?" Surveys provided to guardians considered two key areas related to schools' responsibility toward students' mental health. The Parent Perspective of Teacher Professional Role Responsibilities survey (see Table 2.5) examined how parents view the level of obligation associated with the classroom teacher's role and responsibility towards student mental health needs. Simultaneously, the Parent-Teacher Communications Likert Scale survey (see Table 2.4) investigated parent-teacher communications from the parent/guardian view. Examination of the student perspective occurred using a series of interview questions in a focus group format. The outside provider perspective was collected using two surveys focused on teacher roles and what experts feel should be the teacher's requirements towards students' mental health needs.

Parent view of teacher professional role. Examination of how parents/guardians (*n*=9) perceive the teacher's role (see Table 2.5) concerning their child's mental health occurred using a five-point Likert scale to capture parent opinion. Parents rated statements concerning how they view the teacher's role and responsibility about their child using strongly disagree, disagree, on occasion, agree, or strongly agree. Given that the response format provides five selection options, participant responses are seen as continuous variables and focus on each question's mean and standard deviations. Calculation of the frequency of each Likert scale response occurred using SPSS.

Results from the Parent Perspective of Teacher Professional Role Responsibilities survey showed strong feelings. When parents/guardians were asked to rate their response to the question "A teacher caused my child to feel they could no longer be successful in the school setting as a result of their mental health needs," results indicated that parents felt strongly towards teacher contributions to their child's academic achievement (*M*=2.22, *SD*=1.71). Additionally, data indicate that parents/guardians felt that the school also contributed to their child's feelings of being unsuccessful (*M*=2.33, *SD*=1.65). However, 68% of parents saw the classroom teachers as having less responsibility than the school. Results show parent/guardian participants split in their opinion of their child having received mental health supports from the classroom teacher, with half of the parent/guardian participants reporting that their child's teacher worked collaboratively with them to address their child's needs while the other half reported that the teacher did not. However, 56% of the parent participants did not believe their child's school had adequately provided supports to address their child's mental health needs. Data shows that 56% of the parents felt that both a teacher and the school setting contributed to their child's feelings of being unsuccessful due to their mental health needs. Parent responses to teacher and school

collaboration efforts regarding their child's mental health indicate that 56% of parents do not feel a sense of adequate communication from their child's teacher and school. However, an even split was reported by parents in their opinion of supports instituted by the school to aid their child's mental health needs. Furthermore, communications continued to be an area where 78% of parents felt concerns were not shared by the teacher or school promptly. Overall, 67 % of parents felt that schools did not recognize the mental health needs their child was exhibiting.

Student perspective of teacher professional role. Student participants (*n*=5) above the age of 18 participated in a focus group interview to discuss areas they identify as being contributing factors to their mental health needs in the education setting. The focus group interview was recorded and transcribed using Otter Voice Notes and was analyzed using Textalyser. Identification of the five most common words and frequency statements was the focus of analysis to determine reoccurring topics. Implementation of a prominence rating assigned by Textalyser determined the significance of participant's statements. Data from the student focus group (*n*=5) interviews revealed the most prevalent areas of student concern at school to be: panic attacks (21.2%); lack of counselor involvement (9%); needing more social-emotional support (23.7%); stopping going to school (31.7%); crying (58.2%); lack of school action (80%); and absent problem solving and/or coping strategies provided by the school (82.6%).

Outside mental health provider view of teacher professional role. A five-point Likert scale (strongly disagree, disagree, on occasion, agree, or strongly agree) examining Outside Mental Health Providers Perspective on Teacher Prof. Role Responsibilities (see Table 2.10) provides insight on how outside mental health providers (*n*=12) perceive teacher roles in relation to their client. Given that the response format provides five selection options, participant

responses were treated as continuous variables and focus on each question's mean and standard deviations. Calculation of the frequency of each Likert scale response occurred using SPSS.

Data outcomes (see Table 2.10) from outside mental health provider participants demonstrated a feeling of inconsistency related to when school teams do or do not intervene on behalf of their clients and that schools are responsible for a student's overall mental wellbeing. Despite mild fluctuations in either direction, outside mental health providers report that school teams did take action to support their client (M= 2.25, SD=.62). Comparison of data from outside mental health providers and parent/guardian views of the teacher role took place using SPSS. Comparison of the datasets occurred using an independent-sample t-test to determine the variance between the data outcomes (see Table 2.11). Data from the comparison demonstrated discrepancies in how parents and outside mental health providers view school teams' actions. Parents reported more significant concerns about how the school team reacted to their child's needs (M=2.00, SD=1.32) compared to the view of the outside mental health providers (M=2.08, SD=.66).

Research Question Four

Data examining the teachers' perspective of their professional role was collected from teachers (see Table 2.6) using two surveys and one open-ended questionnaire. The data sought to answer, "What teachers perceive to be their obligation to recognize and understand mental health issues"? Examination of data related to how teachers view their professional role and the obligations associated with their professional role occurred by using the Teacher's Perspective open-ended questionnaire (Lauermann, 2014). With the use of a word frequency tool, patterns were identified within the teacher responses to each question and entered into an analysis tool

created by Grenier (2018) to track the frequency in which teachers had similar keywords in their responses.

Qualitative data outcomes (see Table 2.6) associated with how teachers perceive their professional role did not specifically address mental health needs. Despite the opportunity for teachers to mention mental health as a factor in their classroom, teachers frequently listed time constraints and personal factors as issues impacting their classrooms. When asked, “are there things for which you feel responsible for in your work that is not a part of your formal obligations or job description?’’, 32% of the teacher participants responded with answers associated with “outside factors that impact students.” However, 21% of the responses related to supporting students’ needs fell into other school areas such as advanced placement testing when examining the outside factors. Of the 24 teacher participants, only one teacher reported addressing their students' mental well-being in the classroom. All other references to mental health needs were in association with the classroom teacher’s mental wellbeing.

Findings and Discussion

Parent responses associated with the teacher and school responsibility demonstrate a disconnect in communication between parents and teachers. Overall, parents report concerns with the teacher’s and school’s commitment to their child’s mental health needs. Concerns primarily relate to the way teachers and schools did not communicate problems associated with a student promptly. Data shows that 88% of parent participants viewed communications with teachers as being centered on performance concerns and demonstrates little to no positive communications that could support interpersonal relationships between parents and teachers. Overall, 100% of parents/guardians reported that teachers and school personnel have at least some level of responsibility for their child's mental health needs. Findings from outside mental

health providers participants resulted in 100% alignment in teachers and schools needing to be responsible for student mental health needs. Student focus group data revealed that students felt "unrecognized" when first starting to display mental health needs at schools and view the lack of recognition leading to the student participants requiring more intensive school services. Findings indicate that parents, students, and providers expect teachers to have a working knowledge of mental health needs and believe teachers and schools have an obligation to students displaying mental health needs in the educations setting.

Data demonstrating teacher knowledge of mental health highlights areas of need that one could hypothesize is currently contributing to mental health stigma in the classroom setting. Despite teachers receiving open-ended questions that elicited responses associated with mental health, the qualitative response data was not reflective of concerns related to mental health and demonstrated that teachers do not actively view their professional role as one associated with addressing student mental health needs. Furthermore, teachers are not currently seeking mental health knowledge independently and are not consistently reporting their views towards mental health. Examples of various opinions from teacher participant responses include descriptions of mental health as being an "emotional development," "needing to be well rounded," and "learning to control your feelings and emotions." Teachers recognize the need for further information associated with mental health, which is prevalent in their requests for having access to "clear and simple to read guidelines," "application on how to best serve in an academic setting," and "clear transition directions from [school district]," in relation to mental health resources. Most open-ended responses received from teacher participants regarding their primary focus areas were factors associated with their own lives, time restraints at work, and various student needs. Teacher responses suggest that teachers are currently operating under preconceived notions of

mental health based on limited information and what has been reported by the mainstream media.

Both qualitative and quantitative data outcomes demonstrate gaps in teacher knowledge of mental health, how teachers perceive their professional role, and a breakdown in communications between teachers, parents, students, and outside mental health providers. Data insinuates that teachers do not seem to have the same level of concern as parents/guardians do in relation to students' mental health needs. Based on Miller and Hastings's (2017) research, they discuss how most high-performing teachers are often the ones who find difficulty with the demands of their profession, and as a result, more than half of them leave the profession within five years. With the increasing responsibilities placed on teachers, it is not surprising that mental health is not at the forefront of their minds. However, Miller and Hastings (2017) also suggest that making mental health information more readily available will support teachers as professionals and individuals and ultimately help break stigmas associated with mental health.

Despite policy data demonstrating the need for mental health recognition in schools, support such as counseling services, student support teams, and mental health resources are decreasing as mental health needs are on the rise. Regardless of initiatives such as the President's New Freedom Commission on Mental Health (2003), which aims to improve mental health policies within the education setting; data in the SHPPS (2016) demonstrates an overall decrease in the integration of more intensive mental health services into the school setting nationwide. Specific topics, such as suicide that are currently trending, are increasing their nationwide attention. Still, mental health services that could focus on multiple areas, including suicide, are steadily declining within the education setting (School Health Policies and Practices Study, 2016).

Limitations

After conducting the needs assessment, this study revealed limitations to consider. One limitation includes the selection of parent participants, given that all the parent participants had students with mental health needs that escalated to placement in special education or special programming. As a result, there is a potential for increased teacher performance and responsibility bias from the parent/guardian participants. Additionally, the number of teacher and parent participants was less than desired and may have skewed data outcomes. Statistical conclusion validity is impacted by the low statistical power of the number of participants in each study category. Both size and participant selection hold the potential to have skewed the data given that the respondents all have active concerns. Having a larger sample size would have strengthened data validity and provided a more in-depth analysis of the problem's factors. Finally, this researcher's role as a Secondary Program Specialist in the East Coast Public Schools district may have caused teachers to modify their responses based on concerns linked to this researcher's leadership role.

Conclusion

Barriers relating to mental health stigmas are continuing issues that impact the accessibility of mental health services in the school setting. The needs assessment results demonstrate gaps in teacher knowledge of mental health and a varying view of what responsibilities are part of a teacher's professional role. Evaluation of current training and expressed professional expectations provided to teachers is critical in determining successful interventions. Findings from the needs assessment suggest that teachers are not up to date with the information necessary to support students' mental health needs in the education setting. Interventions focused on providing teachers with engaging professional development to expand

their knowledge of mental health and recognize and respond to students will help improve teacher understanding and identify students in need of support.

In a review examining current trends in effective teacher professional development, Momanyi (2012) places heavy emphasis on student achievement being a direct result of teacher quality. Darling-Hammond (2000) and Elmore (2000) emphasize teachers' need to continuously gain new information and knowledge, especially when new learning areas emerge. Information from Momanyi (2012) presents meaningful professional development as the leading strategy to provide teachers with current information supporting student performance in the classroom. However, despite professional development being a known tool for supporting teacher learning, many teachers are resistant to additional professional development opportunities; due to the increasing demands of their profession (McCarthy, Lambert, Lineback, Fitchett, & Baddouh, 2016).

Additionally, teachers report feelings of misalignment with current professional development opportunities presented by their school district and the information they feel is essential for student success in their classroom (OECD, 2009). Nelson and Bohanon (2019) believe teacher disconnect in professional development stems from teachers' inability to participate in continuous learning that provides practical classroom application. Nelson and Bohanon (2019) suggest that creative and new-age opportunities be available for teachers that meet their current classroom and student needs. The study's next steps include examining how the needs assessment data can best create a valid intervention plan that aligns with current best professional development practices.

Chapter 3

Intervention Literature Review

The recognition of mental health symptoms within school settings faces increasing barriers that impact the accessibility of mental health services for secondary students (Frauenholtz, Mendenhall, & Moon, 2017; Gabbidon et al., 2013; Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010; Kramer et al., 2006; Weist & Paternite, 2006). Mental health disorders are among the most prevalent health impairments impacting secondary students, indicating a need to address academic and social-emotional concerns before students become at risk for increased mental health needs during adulthood (Weems et al., 2015). As shown in the needs assessment, factors related to recognizing secondary students' mental health needs include stigma, policy, teacher knowledge of mental health, parent-teacher communications, and teacher perception of their role. Findings from the needs assessment indicate that teachers want additional opportunities to learn about adolescent mental health needs, suggesting the need for an intervention focused on teacher knowledge of mental health.

The following literature review will focus on interventions tailored to teacher knowledge and attitudes of adolescent mental health needs. Further discussion will outline how Mezirow's (1978) transformation theory, using Nerstrom's (2014) Transformative Learning Model, provides a platform to examine research focused on increasing teachers' knowledge and attitudes towards mental health. Together, the needs assessment results, transformation theory, and the intervention literature will inform the conceptual framework examining relationships between teacher supports and teacher ability to recognize student mental health symptoms that impact student outcomes.

Teacher Awareness of Mental Health Symptoms Information

Compared to their peers not impacted by mental health needs, adolescents experiencing mental health disorders have an increased risk for adverse educational outcomes (Frauenholtz et al., 2017). With no structured system from state or federal policymakers, educators' are without a platform of how to best incorporate mental health services in the school setting (Weist & Paternite, 2006). Schools are an essential link between a student's home and community life, and teachers are in a position to be a vital figure for identifying concerns impacting student learning outcomes (Weist & Paternite, 2006). However, professional development opportunities that provide teachers' with the knowledge required to recognize and support students exhibiting mental distress signs are not commonplace (Frauenholtz et al., 2017). Using an open-ended questionnaire based on Lefevre and Lefevre's (2014) Discourse of the Collective Subject (DCS), teachers (n=24) answered questions to determine their mental health knowledge level. The qualitative data analysis revealed that teachers have limited knowledge of mental health. For example, 52% of participants found the current information being provided to them by the school system as insufficient. Over half of the teacher participants reported that the mental health information they are receiving is inadequate. Teachers currently receive insufficient information from their school system, and they actively express a desire to learn more. Their limited evidence suggests that teachers actively seek resources to increase their mental health knowledge (Soares et al., 2014).

Theoretical and Conceptual Frameworks

Transformation theory is a common framework (see Figure 3.1) to examine how professional development can shape educators' in becoming authentic, individuated, and critically reflective practitioners (Cranton & King, 2003). Within this dissertation, Mezirow's

(1978) transformation theory is applied using Nerstrom's (2014) Transformative Learning Model to inform how professional development focused on teacher knowledge of mental health can improve teacher knowledge and understanding of mental health disorders. Through professional development structured using Nerstrom's Transformative Learning Model, distal outcomes for this study include increasing students' long-term academic and social-emotional success by providing teachers with the information necessary to navigate student mental health needs successfully.

Transformative learning examines how adult views form from the narrow collection of experiences they have had in their lives. Mezirow's (1991) transformation learning theory identifies ten phases that contribute to transformative learning that may or may not all need to be undergone by the learner to experience transformation. The phases identified by Mezirow include: (a) a disorienting dilemma; (b) self-examination of assumptions; (c) critical reflection on assumptions; (d) recognition of dissatisfaction; (e) exploration of alternatives; (f) plan for action; (g) acquisition of new knowledge; (h) experimentation with roles; (i) competence building; and (j) reintegration of new perspectives into one's life (Mezirow, 1991). However, Nerstrom's (2014) research resulted in the Nerstrom Transformative Learning Model (see Figure 3.1) that simplifies Mezirow's ten phases into four parts. Nerstrom's Transformation Learning Model presents transformative learning as occurring in a sequential order where the learner experiences each phase within the model. The four phases included in Nerstrom's (2014) model are: (a) having experiences; (b) making assumptions; (c) challenging perspectives; (d) experiencing transformative learning. Nerstrom's (2014) Transformative Learning Model builds on Mezirow's (1978) transformation learning theory and provides a simplified framework to examine participants' transformative learning in the TEACH Mental Health Literacy Curriculum.

Nerstrom (2014) views transformative learning as taking place when adults receive opportunities to expand their understanding of a topic, question standing beliefs and gain new outlooks that expand their previous views. Occurrences that inform transformative learning can take place suddenly through the experience of a significant life event or can occur through a series of ordinary events, such as professional development, which conclude with a change in personal views (Mezirow, 1991).

A conceptual framework (see Figure 3.2) outlines the underlying variables examined in the intervention literature that is impacting current levels of teacher knowledge associated with mental health needs. Each variable contributes to teachers' impaired ability to recognize students' mental health concerns and accurately and comfortably identify supports for students displaying mental health needs. Three core factors contribute to the problem and include: (a) teacher knowledge of mental health; (b) teacher attitudes towards mental health; and (c) teacher perception towards professional development. Below is the exploration of several variables that contribute to each core factor.

Teacher knowledge of mental health. Current teacher knowledge of mental health impairs teacher ability to accurately and comfortably identify and support students displaying mental health symptoms. Kutcher, Wei, and Morgan (2015) discuss their research demonstrating the gap in teacher ability to intervene when students' mental health needs impact their attendance and academic performance. Given the study results by Kutcher et al. (2015) that students with mental health concerns often show reduced academic achievement, there is a current need to improve instructional practices to support student learning outcomes. As a result of increased teacher knowledge of student mental health needs, a rise in student academic achievement, increased attendance, and access to earlier intervention should result (Kutcher et al.,2015).

Examination of strategies and interventions specifically aimed at improving teacher knowledge of mental health through professional development (PD) will occur below.

Teacher attitudes of mental health. Personal biases come from many factors and experiences in an individual's life that shapes their attitude (Almager, 2018). Public and cultural stigma add to personal bias and contribute to an individuals' views and understanding, including teachers' understanding of mental health. Personal bias can lead to how teachers understand and react to a student experiencing a mental health crisis (Gabbidon et al., 2013; Frauenholtz et al., 2015). Additionally, teachers' attitudes towards student needs often come from school culture and the expectations put forth by school administration and the district they serve (Frauenholtz, Mendenhall, & Moon, 2017). If administrators value academics over their students' social-emotional needs, that will often trickle down to how teachers prioritize student needs (Mahlios, 2002). Individual attitudes, bias, and beliefs towards mental health is an additional variable contributing to the problem. When the student needs conflict with how teachers prefer to approach student learning, it often leaves teachers frustrated and students without appropriate support (Mahlios, 2002).

Teacher's perception towards professional development. Preparation and professional development programs can often be a contributing variable towards teacher understanding of a specific topic. Most teacher preparation programs do not incorporate student mental health needs into their areas of study (Frauenholtz et al., 2015). Additionally, there are limited programs available that provide teachers with professional development on mental health topics, and the available ones are not always conducted in a way that garners teacher buy-in (Van Veen, Zwart, & Meirink, 2012). Teachers require informative training that allows them to understand the social-emotional learning needs of their students' in addition to their academic needs, and this

learning must occur in a way that engages teachers and gains buy-in (Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016).

Literature Review

The primary focus among educational intervention programs seeking to address mental health needs are systems designed to improve student mental health literacy within the school setting that does not account for teacher literacy of mental health. As a result, the empirical evidence found in the literature supports the need for clear and organized mental health training to create a foundation of mental health knowledge for teachers' (Armstrong, Price, & Crowley, 2015). Darling-Hammond, Hyler, and Gardner (2017) define professional development (PD) as "structured professional learning that results in changes to teacher knowledge and practices" (p. 2). The desire to change teacher knowledge and practices can only be successful when thorough planning occurs to account for the participants' needs and the delivery of the training (Meek, Specht, & Rodger, 2017). One qualitative case study in Australia found that when teachers receive opportunities for support and guidance on the topic of mental health, they demonstrate improvement in their ability to identify and respond to students in need of mental health support (Armstrong, Price, & Crowley, 2015). On-going barriers to interventions tied to providing teachers with PD related to student mental health needs include having limited research beyond identifying PD as an ideal intervention method (Scantlebury, Parker, Booth, McDaid, & Mitchell, 2018).

The literature review examines current research on PD designed to facilitate teachers' professional knowledge of adolescent mental health needs and improve their ability to identify and respond to students' mental health symptoms within the classroom setting. Review consideration is given to interventions with strong curriculum outlines specifically designed to

address internalizing mental health symptoms that align with concerns associated with depression, suicide, anxiety, post-traumatic stress disorder (PTSD), and a low sense of self. The categories represent the organization of interventions examining current PD programs for educators related to student mental health needs. The first category examines a PD model that uses a randomized controlled trial to implement and track teacher progress pertaining to knowledge and attitude towards adolescent mental health. The second category reviews non-controlled pre-/post-cohort designs seeking to alter teacher understanding of mental health and elicit a change in how teachers respond to students displaying mental health needs. Examination of potential drawbacks and advantages to both approaches occurs below.

Implementation of a randomized controlled trial model. Studies examining mental health training interventions support the need for a shift from the standard preservice delivery model of PD into a model that is better suited to prepare school-based staff for the challenges related to adolescent mental health needs (Koller & Bertel, 2006). A research study by Rones and Hoagwood (2000) compared 47 studies focused on school-based mental health services and found that collegiate teacher preservice programs are currently inadequate in the amount of exposure and resources they provide to individuals training to become classroom teachers. As a result, teachers' do not receive the knowledge necessary to support the students they will face in their classrooms.

Among the interventions found in the literature are two randomized controlled trials (RCT) studies that evaluate the adult and youth versions of the Mental Health First Aid (MHFA) training program (Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010; Kidger et al., 2016). The Mental Health First Aid intervention aims to support teacher mental health and provide teachers with the information necessary to support student mental health needs (Kidger et al.,

2016). The first of the two MHFA programs explicitly focuses on teacher training in Australia using the shortened and modified version of the Youth Mental Health First Aid training (YMHFA) (Jorm et al., 2010). Participants included teachers and support staff (*N*=327) of students in grades 8–10. Of the participants, 221 staff members were part of the intervention group, with 106 in the control group. Participants in the study were 65% female, with 63% of the participants being classroom teachers. Training of the YMHFA program was delivered by two MHFA certified trainers familiar with secondary classroom teaching. The training took place during two, seven-hour face-to-face sessions.

As part of the training sessions, participants received information on the first day related to department policy, common mental health issues for adolescents, and application of action plans. The second day of training consisted of crisis information, less prevalent mental health issues and responses, the response framework of assessing risk, listening non-judgmentally, providing advice and information, and encouraging professional help self-help. Continual data examining the outcome of mental health knowledge among participants found a notable increase in the follow-up data compared to the baseline data, with an effect size of 0.52 (Jorm et al., 2010). Additionally, Jorm et al. (2010) included measures to examine teacher intention, confidence, and actionable helping behavior as part of their study. As a result, the study discovered progress in teachers' self-described confidence to help themself or a peer with mental health-related issues (d=1.15 post-intervention; 1.07 follow-up). However, additional information is needed to understand how PD contributes to teacher's confidence in supporting students. Additionally, there was no data to support an increase in teachers' actionable helping behavior due to participation in the training (d=0.16–0.47) or follow-up (d=0.30).

The second RCT study under review evaluates the delivery of the Mental Health First Aid (MHFA) training program along with the inclusion of Peer Support associated with the Youth Mental Health First Aid (YMHFA) program (Kidger et al., 2016). Participants in the study came from mainstream secondary schools in three adjacent local authorities within the United Kingdom. Participants included staff members (*N*=1024) with any position in the participating schools, with 472 participants as part of the intervention group and 552 participants as part of the control group. The researchers did not provide the demographics of participants. Training took place within two groups. Group one participated in the MHFA training with an additional peer support component, and group two participated in the traditional YMHFA training. Training for group one took place during two seven-hour face-to-face sessions, with training delivered by one certified MHFA trainer and a nominated staff member from each school that made up the peer support network component. The second group participated in two seven-hour trainings conducted by one certified YMHFA trainer. Training for both groups consisted of information on day one related to common mental health issues and how to apply an action plan. On the second day of training, both groups received crisis information and less common mental health issues and responses. On day two, the individuals receiving the YMHFA content received additional training focused on the response framework of assessing risk, listening non-judgmentally, providing advice and information, and encouraging professional help and self-help.

Evaluation of the intervention's results indicated that the MHFA training was impactful for the intervention schools, and participants reported an increase in their confidence to help with matters related to mental health needs. Additionally, those staff members trained in the method demonstrated increased mental health knowledge and confidence towards supporting others,

including students' mental health needs, when provided the MHFA evaluation tool (Kidger et al., 2016). Findings from Kidger et al.'s (2016) study demonstrate how teachers' comfort levels and abilities with supporting students in need can expand on Jorm et al.'s (2010) results that did not determine teachers' comfort level in relation to student's needs. The MHFA training program creators designed the MHFA evaluation tool to test participants' knowledge using a series of 12 true/false/don't know questions (Kidger et al., 2016). The study's post-intervention effect sizes demonstrate a moderate effect size of 0.73 for attitudes towards anxiety (CI 0.42–3.59) and 0.77 for attitudes towards depression (CI 0.93–2.80).

Although, both studies demonstrated an increase in mental health knowledge among participants. Only the study conducted by Jorm et al. (2010) presented follow-up data related to participant receptiveness of the training and collected data measuring student outcomes. Jorm et al. (2010) did not find a marked improvement in students' knowledge and attitudes towards mental health when their teacher participated in the training program. However, Jorm et al. (2010) suggest that the students of teachers participating in the program did receive an increase in mental health information, and teachers' who participated in the training were more likely to promote mental health awareness in their classroom setting. Furthermore, both studies took place outside of the United States and provide no insight into the level of potential effectiveness they hold when delivered in a setting specific to the United States' education setting.

Implementation of non-controlled pre-/post-cohort design models. With the growing expectation from guardians and school personnel that teachers' roles should also encompass being a low-level mental health provider, expectations towards teacher ability to identify and refer students' to mental health care are growing (Rothì, Leavey, & Best, 2008). However, teachers report that current training and opportunities to expand their mental health knowledge

are limited, voluntary, or lacking (Koller & Bertel, 2006; Rothì, Leavey, & Best, 2008). This lack of quality support often means limited resources for teachers' in the area of mental health, leading to concerns associated with teachers' overall wellbeing (Koller & Bertel, 2006).

To combat the growing need for training specific to expand teacher understanding of adolescent mental health needs and concerns, multiple non-controlled pre-/post-cohort design interventions claim to provide school staff with the information necessary to meet the increasing mental health needs of students'. The Teachers as Accompagnateurs (TAPS) program is designed to deliver information to teachers' on recognizing and supporting students' going through a mental health emergency (Eustache et al., 2017). As part of the program, teachers receive a response framework that includes exact steps to support a student in need (Anderson et al., 2018). Participants in the training included secondary school teachers (N=22) located in Haiti, 82% of participants being male and a median age of 40.1 years. The training took place face-to-face over two and one-half days and was led by the research authors. The training consisted of providing participants a series of didactic presentations, interactive discussions, and role-play opportunities. Data collected during the post-test found a large effect size of 1.32 in teacher knowledge of mental health and .60 in teachers' mental health attitudes. Follow-up data collection occurred within six months and found a shift in the effect size compared to the baseline, with 1.28 for knowledge and 1.00 for attitudes associated with mental health (Eustache et al., 2017). Quantitative and qualitative data measures used to collect participant feedback determined that participants found the training relevant to the perspectives and skills needed within their professional practices (Eustache et al., 2017). Furthermore, Eustache et al. (2017) found that participants wanted the training to extend past the two- and one half-day timeframe.

The Go to Educator Training (Go To ET) was developed in 2009 in a collaborative effort between mental health professionals and teachers. The Go To ET is part of the School-Based Integrated Pathways to Care Model created by Wei, Kutcher, & Szumilas (2011) that partners schools with mental health care professionals (Wei & Kutcher, 2014). The study took place in Canada, and participants included secondary school staff (*N*=134). Training took place during one, seven-hour, face-to-face workshop. The workshop was conducted by a knowledge translation team from a local healthcare location and included the use of a series of videos and games focused on youth mental health epidemiology, the stigma of mental illness, challenges in the school setting, common disorders, treatment, and support, referral, and dealing with family (Wei & Kutcher, 2014). The study found a post-test effect size of 2.3 on teacher knowledge and 0.36 on teacher attitudes towards mental health. Collection of follow-up data from participants did not occur.

The Guide Professional Development Program (GPDP) is designed to increase pre-service teachers' mental health literacy in knowledge, attitudes, and help-seeking efficacy and prepare them to address mental health in the classroom setting (Carr, Wei, Kutcher, & Hefernan, 2017). The study took place at the University of British Columbia (UBC), and participants included preservice teachers' in middle and secondary year streams (*N*=57). During one seven-hour face-to-face didactic workshop, training took place that guided participants through six learning modules (Carr et al., 2017). Modules included information focusing on mental health needs relevant to the school setting, stigma, mental illness experiences, seeking help, the importance of positive mental health, finding further teacher resources, and dealing with mental health issues in the classroom setting. Results collected during the post-test found an effect size of 3.1 in teacher knowledge of mental health and 1.18 in teachers' attitudes of mental health.

Follow-up data collection occurred within six months and found a shift in the effect size compared to the baseline, with 1.74 for knowledge and 0.68 for attitudes associated with mental health (Carr et al., 2017).

Finally, the TEACH Mental Health Literacy program examines educators' understanding of adolescent mental health before and immediately after delivering one introductory module and six informational professional development modules. Initially designed by researchers in Canada for Canadian school use, the curriculum is now available for open use in the US through an adapted version of the program. The program introduces participants to basic ideas surrounding mental health needs and how to take those ideas and implement them in the classroom setting. The Mental Health and High School Curriculum Guide, when implemented in Canada, demonstrated a substantial increase in teacher understanding of mental health literacy outcomes for both teachers and students (Kutcher & Wei, 2014; Kutcher, Wei, & Morgan, 2015; McLuckie et al., 2014; Milin et al., 2016). The curriculum guide can occur in a face-to-face setting or online format, and data supports positive outcomes from participation in either environment (Kutcher, Wei, McLuckie & Bullock, 2013).

The TEACH Mental Health course for educators aims to improve educators' knowledge, attitudes, and help-seeking efficacy related to student mental health needs. Teachers' receive the resources to participate in one background introduction module and six online classroom-ready modules: Introduction and Background; Stigma and Mental Health; Human Brain Development; Understanding Mental Health, Mental Illness and Related Issues in Young People; What is Treatment?; Seeking Help and Providing Support; and Caring for Students and Ourselves. When implemented, the TEACH Mental Health Literacy program demonstrated results from the post-evaluation and follow-up evaluation that participants overall mental health knowledge

significantly improved after participating in the PD program. Following the teachers' participation in the training, a paired-samples t-test occurred to examine changes in educators' knowledge and attitudes related to mental health. Controlled feedback from 79 participants demonstrated a noteworthy increase in both teacher knowledge and attitudes of mental health scores. Additionally, participants rated the training sessions highly, with overall findings indicating the potential for the TEACH Mental Health Literacy training to improve teachers' mental health knowledge and attitudes. Researchers applied the one-way repeated measures ANOVA to show how the mean scores were significantly different among pre-test ($M = 18.33$), post-test ($M = 27.77$), and 3-month follow-up ($M = 25.15$; $F = 126.78$, $p = .00$).

Implementation outcomes and determinations. None of the six studies above provide a measure of program fidelity that allows for precise adherence to the course curriculum. Research conducted by Rock (2017) found no measurable difference in teacher application of information obtained in professional development (PD) programming that occurred online versus programming that happened in a face-to-face setting. Findings from Rock (2017) suggest that online PD can be equally effective as traditional in-person models. Additionally, Stahmer, Suhrheinrich, Schetter, and Hassrick (2018) have found that despite growing evidence in teachers' ability to implement positive mental health practices in their classroom effectively, there is often a disconnect reported by teachers' on how to implement and sustain practices received during teacher training. The researchers note that contextual factors related to training implementation procedures can influence training results. Stahmer et al. (2018) share how participants' perception of the target intervention can affect their outcomes based on their expectations.

Rakes, Bush, Ronau, Mohr-Schroeder, and Saderholm (2017) point out the impact of spending limited time introducing the intervention to create meaningful connections to the material and designing an effective intervention can have on the foundation of a PD program. Borko (2004) and Rakes et al. (2017) provide the following guidelines to develop a PD that will implicitly change teacher professional practice: (1) focusing the PD on developing teachers' knowledge of mental health; (2) providing teachers' with opportunities to engage in active learning techniques; (3) making connections to teachers' specific professional role; and (4) provide PD that is more than three full professional days in length, well-organized and structured to offer the best means to implicit change in teacher knowledge and attitude of mental health needs.

Given that none of the primary professional development interventions available to support the growth of teacher knowledge and attitude towards mental health have been studied in the United States, there is a need to study the implementation of a professional development program that seeks to support U.S. teachers. Of the programs examined, both the TEACH Mental Health Literacy program and The Go to Educator Training (Go to ET) program were designed and conducted in Canada. Research by Vasiliadis, Lesage, Adair, Wang, and Kessler (2007) found no significant difference in the prevalence of mental health disorders between the United States and Canada when compared. The Vasiliadis et al. (2007) study implements a Canadian-based professional development program most ideal for application in the United States given the limited variance between the two countries' mental health data. Additionally, the Go to ET program is most suited for pre-service teachers. The TEACH Mental Health Literacy program would be most appropriate to replicate and study within a U.S. context. Furthermore, the requirements put forth for completion of the TEACH Mental Health Literacy Curriculum align

with guidelines suggested by both Borko (2004) and Rakes et al. (2017) for a successful PD program.

Enhancing Teacher Knowledge and Attitudes of Mental Health Through Professional Development

The need to provide teachers with professional knowledge that improves their ability to support students' at risk for mental health needs is a growing concern in the education setting (Kidger et al., 2016). Providing teachers' with the knowledge required to identify and support students experiencing mental health needs has been shown to improve staff-student relationships, improve students' academic results, and increase teacher mental health well-being and job satisfaction (Kidger et al., 2016). To support teachers' feelings of confidence and competency towards the knowledge of student mental health needs, Vieluf, Kunter, and van de Vijver (2013) present findings from their research demonstrating the positive impact training can have on improving teacher confidence. Therefore, professional development (PD) aimed at providing teachers with the knowledge they require to support students' displaying mental health symptoms would seem the best solution for the delivery of support.

State, Simonsen, Hirn, and Wills (2019) discuss their findings related to how various PD programs are often ineffective due to restraints administrators' have when seeking best practices that fit within their allotted time and budget restrictions. For PD to be effective, teachers require more than a single PD opportunity and ongoing support and reinforcement of the skills and procedures delivered during the PD training (State, Simonsen, Hirn, & Wills, 2019). Additionally, school culture plays a critical role in how teachers' are receptive to available PD opportunities. Lee and Li (2015) discuss their findings related to how the success of any school relies on the quality of the school's culture, given that school culture represents the buildings'

key values and is an important factor in the level of commitment effort staff place on their work. For teachers' to be receptive to PD opportunities and engage with the material, school leaders' must provide impactful learning opportunities for teachers (Behrstock & Clifford, 2009).

Rakes et al.'s (2017) research examines the type of PD design that explicitly allows for a change in teacher knowledge, beliefs, and professional practices. Rakes et al.'s (2017) four-phase PD framework, PrimeD, is structured to naturally involve teachers in the PD practice development process. The four phases that make up the PrimeD framework include (a) a design and development plan that defines the collective vision of the PD and identifies the target focus; (b) PD implementation, including how the PD is structured and required supports for effective delivery; (c) formative and summative evaluation of the overall PD program; and (d) research associated with the PD program, specifically examining the effectiveness of the overall delivery (Rakes et al., 2017). Additionally, State et al. (2019) describe effective PD as (a) thorough and continuing; (b) driven towards content knowledge and student learning; (c) parallel to learning needs and school improvement goals; (d) an opportunity for ongoing teacher development; (e) collaborative among teachers'; (f) professionally rooted; and (g) supportive and formative to teacher performance outcomes.

In 1991, The Peacock Hill Working Group identified structures that would support PD for teachers' working with students with social-emotional impairments. The identified systems include creating exemplar programs that highlight successful practices and refining and increasing in-service PD for teachers' that emphasize multi-agency collaboration, current and valid classroom practices, and family-based intervention models (State et al., 2019). Empirical literature aligns with the findings made by the Peacock Hill Working Group (1991) and suggests that the practices in PD most likely to create change in teacher knowledge of students mental

health needs include: (a) ongoing workshops tailored towards understanding student mental health needs; (b) opportunities for understanding personal mental health needs; (c) ongoing opportunities for teachers' to gain active support in the classroom setting; and (d) continuing coaching of supporting mental health needs in the classroom setting (Dods, 2016; Kutcher, Bagnell, & Wei, 2015; State et al., 2019; Woods & Rodger, 2014).

Literature findings designate PD training as an impactful learning approach that delivers learning opportunities for teachers' to improve teacher knowledge and practices towards adolescent mental health needs (Armstrong, Price, & Crowley, 2015; O'Toole, 2019). Explicitly, PD can provide teachers with a higher level of confidence in understanding and reacting to student mental health needs (Kidger et al., 2016). However, despite the promising outlook PD has on addressing teacher understanding of adolescent mental health, many teachers harbor underlying resistances to increasing their understanding. Graham, Phelps, Maddison, and Fitzgerald (2011) discuss the concept of self-efficacy (Bandura, 1977) as a potential hurdle contributing to teacher personal bias. Graham et al. (2011) found that teachers' personal biases towards adolescent mental health needs, along with their individual ability to face and understand their own mental health concerns, can impact their receptiveness and the success of any mental health training. Of the 508 teachers surveyed by Grahm et al. (2011), 30% did not see participation in mental health educational programing as valuable. Despite this concern, findings from multiple researchers demonstrate the impact PD can have on teachers' understanding of mental health and their ability to identify and support students' that display mental health needs in the school setting (Kidger et al., 2016; Meek, Specht, & Rodger, 2017; Osagiede, Costa, Spaulding, Rose, Allen, Rose, & Apatu, 2018).

Summary of Intervention Literature

There is currently limited evidence to demonstrate that teachers receive the preservice training necessary to increase their knowledge and understanding of mental health symptoms impacting their adolescent students'. However, empirical intervention literature offers evidence of PD being an ideal method for delivering critical knowledge to teachers' to shape how they interact and respond to student mental health needs. A framework such as the TEACH Mental Health Literacy Curriculum is an ideal format for delivery. The online and reflective nature creates flexibility and allows for implementing necessary changes discovered by participants throughout the PD, leading to improvement and advancement of the PD programming. As previously discussed, there is no measurable difference in teacher application of information obtained in professional development (PD) programming that occurred online versus programming in a face-to-face setting (Rock, 2017). A paired-samples t-test was used to examine changes in educators' knowledge and attitudes related to mental health and demonstrated a noteworthy increase from the participants (N=79) in both teacher knowledge and attitudes of mental health scores. Participants' rated the training sessions highly, with overall findings indicating the potential for the TEACH Mental Health Literacy training to be an engaging program to improve teachers' knowledge of and attitudes towards mental health.

Additionally, research suggests that PD training is an adult educational approach that can support teacher learning and suggests that teachers involved in the training process have a higher likelihood of remaining invested in the training program's intentions (Han & Bahr, 2005). Professional development demonstrates the importance of self-efficacy on teachers' perception of their abilities (Bandura, 1993). As a result, providing teachers' with the opportunity to connect with the material in a setting conducive to their learning needs and the ability to examine the

challenges associated with supporting students' with mental health needs can lead to improved teacher knowledge of mental health in the long term (Meek, Specht, & Rodger, 2017).

Findings from the needs assessment suggest that teachers want additional learning opportunities to learn about adolescent mental health needs (Eccleston, 2019). Additionally, current empirical evidence supports the use of PD as a method to increase teacher knowledge and attitudes in the area of mental health (McEvedy, Maguire, Furness, & McKenna, 2017; Meek, Specht, & Rodger, 2017; Osagiede et al., 2018; von der Embse et al., 2018). As a result of these findings, this study will focus on an online format of the TEACH Mental Health Literacy Curriculum program to improve teacher knowledge of and attitudes towards adolescent mental health needs. The TEACH Mental Health Literacy Curriculum program provides the information necessary to increase teachers' ability to implement new knowledge and instructional practices provided during PD (Tschannen-Moran & McMaster, 2009). Findings within the literature support the need to implement a training targeted explicitly at U.S. secondary teachers' that addresses their knowledge and understanding of adolescent mental health needs. A proposed solution stemming from the literature involves implementing the TEACH Mental Health Literacy Curriculum program to create an online teacher-centered professional development module that provides teachers' with information associated with adolescent mental health concerns (Harrington, 2015; Imran, Rahman, Chaudhry, & Asif, 2018; O'Toole, 2019). Outcomes from previous implementations of the TEACH Mental Health Literacy Curriculum with Canadian educators' demonstrated results from the post-evaluation and follow-up evaluation that participants' overall mental health knowledge significantly improved after participating in the PD program.

The needs assessment results indicate that teachers' have limited knowledge of adolescent mental health needs, which is made evident by the elevated standard deviation scores of questions examining teacher interest in learning about and being comfortable with mental health disorders. Given the data from the needs assessment and the current lack of research on the implementation of mental health teacher training programs outcomes in the United States, research on the implementation and outcomes of a PD program targeting teacher knowledge and attitudes towards mental health is necessary.

Interventions supporting screening procedures have shown to improve teacher knowledge of mental health symptoms (Von Der Embse, Kilgus, Eklund, Ake, & Levi-Neilsen, 2018). Components of the TEACH Mental Health Literacy Curriculum for educators include training specifically designed to aid teachers in recognizing and identifying student mental health concerns (Kutcher, Wei, McLuckie & Bullock, 2013). The TEACH Mental Health Literacy Curriculum selection is directly linked to the program's ability to touch on key learning tools, such as screening procedures. Using Borko's (2004) four elements that contribute to successful professional development programming, implementing the intervention will meet the needs of secondary teachers unfamiliar with the symptoms associated with mental health. The intervention will consider teacher participants', the professional development programming, the facilitators, and the environment in which the participants and the professional development program co-exist (Borko, 2004). Participant considerations are made through the format, delivery, and timing of the intervention. Professional development programming considerations will involve module structure, time requirements for each module, and the level of engagement each module provides to the participants'. Facilitator consideration will include a set schedule that accounts for the study's operations, including sending reminders to participants and ensuring

the study is completed within the required timeframe. Environmental considerations will consider the study's fully online delivery format and any potential internet or connectivity problems. A series of modules addressing factors associated with adolescent mental health needs in the school setting is implemented over time to support ongoing connections among teachers' (Garet, Porter, Desimone, Birman, & Yoon, 2001). Intervention goals will focus on providing teachers' the information necessary to feel confident in actively addressing their students' mental health needs (Koller & Bertel, 2006).

Chapter 4

Intervention Procedure and Program Evaluation Methodology

A review of the intervention literature and the needs assessment results indicate a disconnect in teacher's constructive knowledge of and attitudes towards mental health within their professional role. This chapter provides an overview of the intervention, purpose of the study, research design, and methodology. Data from the needs assessment shows that teachers' are not currently seeking mental health knowledge independently and have varying comfort levels working with individuals with mental health needs. Support for the data findings is evident in teachers' responses to having a higher discomfort level when examining their safety in relation to an individual with a mental health disorder (M=2.22, SD=1.16). Additionally, qualitative data from the needs analysis demonstrates that teachers' are presently operating under inaccurate preconceived notions of mental health and would benefit from further information associated with supporting students with mental health needs in the classroom setting. The needs assessment results demonstrate gaps in teacher knowledge of mental health and negative attitudes towards individuals with mental health needs that stem from uninformed personal biases. Findings from the needs assessment illustrate the need for professional development (PD) that provides teachers' with an understanding of critical knowledge that supports their ability to recognize and respond to students' mental health needs in the education setting. The intervention will focus on implementing the TEACH Mental Health Literacy Curriculum PD program designed to support educators' understanding and attitudes of adolescents with mental health needs before and immediately after delivery of one introductory module and six modules focused on mental health topics in the classroom setting (Kutcher & Wei, 2014). Selection of the TEACH Mental Health Literacy Curriculum program for this study is due in part to the

curriculum's alignment with a focus on both teacher knowledge and attitudes related to adolescent mental health and the programs ability to meet the guidelines suggested by both Borko (2004) and Rakes et al. (2017) for a successful PD program that includes (1) focusing the PD on developing teachers' knowledge of mental health; (2) providing teachers with opportunities to engage in active learning techniques; (3) making connections to teachers' specific professional role; and (4) providing PD that is more than three full professional days in length, well-organized and structured to offer the best means to implicit change in teacher knowledge and attitude of mental health needs.

The TEACH Mental Health Literacy program is an evidence-based program that demonstrates positive results for teachers' increased mental health literacy (Kutcher & Wei, 2014). In addition to teacher gains in mental health knowledge from PD participation, research shows that students also benefit from teachers' improved knowledge of mental health needs and increased support for students displaying mental health needs (Kelly, Rossen, & Cowan, 2017). Factors embedded into the TEACH Mental Health Literacy Curriculum program that focuses on positively expanding teachers' knowledge and attitudes towards mental health aligns with Nerstrom's (2014) Transformative Learning Model of shifting adult views that stem from previously limited perspectives. The TEACH program aligns with the features for effective change in teacher's practice, understanding of skills, and content areas by including: (a) reform type or non-traditional approaches to professional development; (b) duration of three days or more or contact hours spent engaged in the PD; and (c) active learning (Desimone, Smith, & Guskey, 2002; Guskey, 2003). Furthermore, the TEACH Mental Health Literacy Curriculum in this study will contribute not only to the literature specific to this model but also for further data

examining the success of teacher training programs associated with adolescent mental health, especially in a U.S. context.

Research Design

The TEACH Mental Health Literacy Curriculum Guide intervention study is a quasi-experimental research design intended to investigate the impact of the online module PD sessions related to mental health literacy outcomes among secondary teachers belonging to an affluent and diverse east coast suburban public school system. For this study's purposes, the school district examined in this study will use East Coast Public Schools (ECPS) as its pseudonym. The overall design method used for the study is an embedded sequential design to account for the qualitative data collected from the Overall Satisfaction Survey. Creswell and Clark (2011) describe the embedded approach as appropriate when one type of data is most critical to the researcher. In this study, the quantitative data will be the most essential to the evaluation process, and the qualitative data will support the overall analysis. Teachers' will have access to virtual professional development to increase knowledge of and attitudes towards mental health needs. Outcomes from previous implementations of the TEACH Mental Health Literacy program suggests that participants' in training will increase their mental health knowledge and improve their ability to apply support strategies such as identification and referral practices when working with students' in the classroom setting (Kutcher, Wei, McLuckie, & Bullock, 2013). The logic model (see Figure 4.1) associated with the problem of practice summarizes the situational needs and assets required for the implementation of Kutcher, Wei, McLuckie, and Bullock's (2013) TEACH Mental Health Literacy Curriculum. Inputs within the logic model specifically share the projected intervention time needed, number of projected participants, and technological needs associated with the intervention. Outputs state the activities related to the

intervention's implementation, including one introductory module and six professional development sessions over seven weeks. The overall participation output will need to have a mix of 74 secondary teachers, administrators, and staff development teachers.

The theoretical outcomes-impact of the intervention outlined in the logic model includes the short-term, medium-term, and long-term projections. Short-term results are focused on student learning needs and include the increase of teacher awareness and knowledge of behaviors associated with mental health needs, the reduction in teacher and administrator stigma towards mental health, and teacher ability to direct students identified as needing mental health support to the right resources. Action items addressed in the medium-term outcomes-impact include teacher ability to show more empathy towards their students displaying mental health needs, increase in early referral and student access to mental health supports, a standardized professional development curriculum on student mental health needs to be delivered district-wide, and an overall improvement in student attendance data. The long-term outcomes-impact discussed in the logic model focus on the intervention's economic, civic, and environmental results over time. Economic outcomes theorize a reduction in private placement referrals for students displaying mental health needs and reducing more significant mental health interventions needed for students during their adult life. Civically, increased mental health awareness and increased social acceptance are listed in the logic model as a theoretical outcome. Environmentally, the intervention should produce a higher graduation rate of students prepared to contribute to societal needs. The assumptions and external factors addressed within the logic model outline the actions needed to meet the intervention's intended goals.

A one-group, pre-post-test design will obtain the information necessary to determine the TEACH Mental Health Literacy Curriculum program's outcome effectiveness in this study’s

application (Campbell & Stanley, 1963; Shadish, Cook, & Campbell, 2002). An outcome evaluation for this study will determine if participant results demonstrated achievement in the TEACH Mental Health Literacy Curriculum programs objectives. Analysis of participant data will decide if steps to improve the program are necessary during future implementation (Clifton, 2017). Implementation of the TEACH Mental Health Literacy Curriculum will occur during the 2020-2021 school year. The intervention is designed to include 74 voluntary secondary teacher participants, representing a non-random sample of the greater East Coast Public Schools district's teacher population.

Hypothesis

This study hypothesizes that teachers will develop greater knowledge and increase positive attitudes towards student mental health needs within the secondary school setting. The research questions in this study are included below.

Questions

Process Research Questions:

RQ1: How do participants rate their level of overall engagement in the TEACH online professional development training?

RQ2: How many participants in a self-paced online professional development training completed the training in its entirety?

Outcome Research Questions:

RQ3: How does teachers' knowledge of mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?

RQ4: How do teachers' attitudes towards mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?

Process Evaluation

Process evaluations provide information for researchers' to examine both the external and internal validity of how an intervention was applied and accepted by participants (Baranowski & Stables, 2000). Process evaluation allows the researcher to observe and guide the program implementation process by positing questions about the studies' ability to accomplish its attended goals throughout the study's progression (Stufflebeam & Shinkfield, 2007). Aims of a study's process evaluation include recording the progression of the study, gaining information related to how the goals of the study are applied, if changes or alterations to the study's aims are required, and determining the degree to which participants' actively fulfill their function in the study (Stufflebeam & Shinkfield, 2007).

Indicators of participant engagement. Saunders et al. (2005) discuss how participant involvement in a study can be a challenge since it requires the researcher to anticipate how participants' will view and behave towards the intervention before working with them. The research question seeks to learn if participants' felt the intervention captured their attention in an engrossing way to define participant engagement. To know if participants' are genuinely engaged in the study, Zhang et al. (2011) suggest evaluating the extent to which participants of the study are willing to accept the presented information and implement it into practice. Likert questions such as, "This activity enhanced the participant's professional growth and deepened your reflection and self-assessment of exemplary practices," on the Overal Satisfaction Survey considers Zhang et al.'s (2011) suggestion for evaluation.

The use of module quizzes at the end of each section will allow this researcher to monitor progress through the PD and present participants' feedback concerning their learning at the end of each session. The concept of value is essential since teachers' are more likely to use the

study's information if they feel a sense of connection and investment in the training (Rakes et al., 2017). Achievement of the ultimate impact stated in the logic model is dependent on teacher buy-in. To answer the question "To what extent do participants report their level of overall engagement in the TEACH online professional development training?". Participants' will answer the question, "What do you feel is your level of engagement with the material in relation to the time spent participating in the training?" on their overall satisfaction survey.

Indicators of intervention dose. Evaluation of dose within this study occurs by examining the quality of intervention established by and provided to the participants through an analysis of the time participants' spent engaged in the intervention (Steckler, Linnan, & Israel, 2002). The primary indicators connecting dose in the study examines the fidelity related to the degree to which participants complete and are satisfied with the training intervention (Dusenbury et al., 2003). Determinations made during the intervention planning phase list the completion time of the TEACH Mental Health Literacy Curriculum's one introductory module and six learning modules to be approximately eight and one-half hours over a seven-week timespan. Steckler et al. (2002) define dose as the amount of time each participant spends on the provided training modules. To answer the question, "How many participants in a self-paced online professional development training completed the training in its entirety?", completion of the full training is monitored and noted by this researcher using the online classroom tools in Canvas that track the amount of time participants' are logged into the training platform.

Outcome Evaluation

An outcome evaluation is used to inform the researcher if the intervention applied in the study yielded the results the intervention was intended to accomplish (Rossi, Lipsey, & Henry, 2019). Pragmatism is selected to be the philosophical framework that will guide the study's

outcome evaluation research design (Creswell & Plano Clark, 2011). Pragmatism allows researchers to apply quantitative and qualitative data to gain perspective on the study's outcomes (Johnson & Onwuegbuzie, 2004). The logic model (see Figure 4.1) exhibits proximal outcomes measuring teacher knowledge and attitudes of adolescent mental health needs. Likert-scale surveys and responses from open-ended survey questions will inform the outcome results of the study. Evaluation of the TEACH Mental Health Literacy Curriculum outcomes uses secondary teachers' participation in one introductory module and six independent learning modules, a 30-item confidential questionnaire designed to measure mental health knowledge completed before the training (i.e., pre-test) and immediately following (i.e., post-test). Measures also include eight items exploring attitudes related to mental illness, using a seven-point Likert Scale ranging from a strong positive response (7 points) to a strong negative response (1 point).

The purpose of this embedded sequential mixed-method study is to facilitate the development of teacher knowledge of and attitudes towards mental health needs using an intervention focused on enhancing teacher's mental health literacy using the TEACH Mental Health Literacy Curriculum (Kutcher, Wei, McLuckie, & Bullock, 2013). Evaluation of the study will occur through the collection of quantitative data related to the intervention procedures and qualitative data related to the intervention experience; allowing this researcher to analyze the outcomes from each instrument and merge the results for a precise evaluation of the TEACH Mental Health Literacy Curriculum (Creswell & Plano Clark, 2011). Evaluation will employ a quasi-experimental quantitative design to collect data from both the pre-post-test and Devaluation Consumer Scales surveys. The use of SPSS 17 will occur to conduct a paired-samples t-test to determine if significant differences exist in knowledge and attitudes between pre- and post-surveys. The use of a t-test allows for the comparison of the mean for the pre and

post-test data. The analysis will determine if there is a significant difference in how participants' group scores differed between pre- and post-test responses. Analysis of the results will provide information critical in determining if the study successfully increases teacher knowledge of and attitudes towards mental health.

Theory of Treatment

A theory of treatment (ToT) defines how an intervention promotes the outcome the study proposes by creating an overview of the procedures intended to aid the application of treatment (Leviton & Lipsey, 2007). The intervention ToT in this study aligns with Nerstrom's (2014) Transformative Learning Model, which is part of the dissertation's theoretical framework. Mezirow's (1978) transformation theory provides a framework for educators to reflect on how we create meaning from the psychological and sociocultural factors we are exposed to. By reflecting on the psychological and sociocultural assumptions that we create to make meaning in our lives, we can see how we develop particular views and facts that are not necessarily valid (Mezirow, 1978). Therefore, exposure to new psychological and sociocultural components within the TEACH Mental Health Literacy Curriculum program based on evidence will allow teachers with preconceived notions about mental health to question and expand upon what they previously thought to be true.

The intervention targets teachers' current understanding of mental health and their attitudes towards individuals with mental health needs. The ToT for the intervention for the TEACH Mental Healthy Literacy program provides PD training that applies active learning tasks designed to increase educator's knowledge of mental health disorders, improve attitudes towards individuals with mental health needs, and improve their self-efficacy beliefs that impacted the use of new instructional practices (Desimone et al., 2002; Garet et al., 2008). The use of

interventions that support screening procedures has been shown to improve teacher knowledge of mental health symptoms (Von Der Embse, Kilgus, Eklund, Ake, & Levi-Neilsen, 2018). Therefore, intervention goals aim to provide teachers with information on student mental health needs in the classroom setting through a PD that outlines behaviors associated with adolescent mental health needs and the steps necessary to provide identified students' support (Koller & Bertel, 2006).

Using Borko's (2004) four elements that contribute to successful PD programming, the intervention will specifically meet secondary teachers' needs unfamiliar with mental health behaviors and how to approach and direct students' to necessary resources. The intervention will consider teacher participants' engagement, the implementation of an already existing intervention program, and the online environment in which the participants and the PD program co-exist (Borko, 2004). A series of modules addressing factors associated with adolescent mental health needs in the school setting is implemented over seven weeks to create ongoing connections for participants with the materials (Garet, Porter, Desimone, Birman, & Yoon, 2001). Teachers' will gain the information necessary to recognize mental health symptoms, shift current assumptions contributing to mental health stigma, and support student engagement in the classroom (see Figure 4.4).

Method

This embedded sequential mixed method design includes surveys designed to collect data on indicators related to teacher knowledge of mental health, attitudes towards mental health, and satisfaction related to participation in a PD curriculum. Teachers' will participate in a 30-question survey both before the start of the intervention and immediately following. Additionally, teachers will participate in a Likert scale survey to provide data on participants'

attitudes towards mental health. Post-module quizzes are utilized to track participant progress but will not determine the study's outcomes.

Measures or Instrumentation

Mental health curriculum guide general questions. All participants' will complete a 30-item confidential questionnaire to measure knowledge towards mental health and mental disorders (Kutcher & Wei, 2014, see Appendix L). Completion of the questionnaire will occur before the training and immediately following. Of the questionnaire items, all 30 items explore general knowledge about mental health and mental disorders related to the TEACH Mental Health Curriculum Guide's content. Knowledge questions are in the form of 'true' or 'false.' Examples of the general mental health items include, 'Schizophrenia is a split personality' (item 9), 'Diet, exercise and establishing a regular sleep cycle are all effective treatments for many mental disorders in teenagers' (item 12) and 'Serotonin is a liver chemical that helps control appetite' (item 17). Data collected from this survey seeks to answer the question: How does teachers' knowledge of mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program? (see Table 3.3)

Devaluation of consumer scale. The Devaluation of Consumer Families Scale (DCFS) is an instrument first created by Struening et al. (2001) to measure alleged stigma towards individuals with mental health needs. Modification of the DCFS by Kutcher et al. (2013) occurred to make the survey more school-focused and uses an eight-item scale to capture teacher attitudes related to mental illness (see Appendix M). Testing completed by Chang et al. (2018) using Pearson Correlation confirmed the Devaluation of Consumer Scale's validity and reliability. The survey uses a seven-point Likert scale ranging from a strong positive response (7 points) to a strong negative response (1 point). The structure of the questions contains negative

wording, and participants' disagreement with a statement depicts a positive attitude towards mental health. Examples of the attitudinal items include ‘Most people who have a mental illness are dangerous and violent’ (item 1) and ‘I would be willing to have a person with a mental illness at my school’ (item 2). Analysis of the calculation of a positive attitude score of 56 possible points will demonstrate higher scores representing positive attitudes and a decrease in stigma. Administration of the Devaluation Consumer Scale survey will occur prior to the start of the training and again after the training curriculum. Data collected from this survey will seek to answer the question: How do teachers’ attitudes towards mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program? (see Table 3.3)

Overall Satisfaction Survey. Participants will complete a confidential Overall Satisfaction Survey specifically designed to measure teacher satisfaction with the professional development program (see Appendix N). The survey collects participant feedback regarding the training's overall satisfaction, the perceived impact on participants' professional practice, and open-ended comments related to participants' plans for professional practice related to the training. Participants’ will provide quantitative ratings on a five-point scale, with zero being poor and five being excellent. Examples of statements in the survey include ‘course activity was well organized’ (item 1) and ‘this activity increased the educator’s teaching’ (item 7). Participants’ will also provide qualitative data in the form of comments and suggestions for improvement. Data collected from this survey seeks to answer the question: To what extent do participants’ in the online TEACH Mental Health Literacy Curriculum view the training as satisfactory towards a professional need? (see Table 3.3)

Participants

Participants' in this study will consist of a convenience sample of all secondary teachers, administrators, staff development teachers in the East Coast Public Schools district, and voluntary participation. Participant eligibility in this study includes being a current employee at East Coast Public Schools, being a currently certified secondary education teacher and voluntarily selecting to be part of the study (see Appendix O). Teachers with only an elementary certification are not eligible to be part of the study. The convenience sampling procedures will allow for all qualifying participants who volunteer to access the study.

Recruitment of participants' will take place through outreach to each secondary principal in East Coast Public Schools. Principals' will be provided an e-mail with the study's details and asked to share the e-mail with their staff through the school's staff e-mail communication system (see Appendix P). Embedded in the e-mail provided to principals and potential participants will be a link to a Google form. The Google Form will allow interested participants to communicate their interests directly with this researcher. Once this researcher receives a notification via the Google Form, the participant will be enrolled in this researcher's online training classroom and receive a generic e-mail from this researcher notifying them of their enrollment and training timeline. Recruitment will take place over two weeks, and a reminder e-mail related to participation in the study will be sent to each principal for distribution to staff three days before the two-week recruitment cut-off. Participants in the study will be part of one large group without the use of a control group.

A power analysis occurred using the program *G_Power* (Faul, Erdfelder, Lang, & Buchner, 2007). Given the significance level of $\alpha = .05$, power, $1-\beta = 0.80$, the number of groups $n = 3$, the number of covariates $n = 1$ (pre-test score), and the large effect size $f = 0.5$ for the

analysis of covariance-based on a similar study (Wei, Carr, Alaffe, & Kutcher, 2019), the study requires a total sample size of $n = 74$ to achieve 80% power.

Procedure

This section presents an overview of the TEACH Mental Health Literacy Curriculum intervention, data collection, and data analysis methods to show the alignment between the research questions, measures used to operationalize the variables of interest, data collection, and data analysis. An outline of the TEACH intervention is below, including a timeline for implementation, professional development activities, and complete descriptions of data collection and analysis methods for this study's quantitative measures.

Intervention

TEACH intervention. Using a model established by Kutcher, Wei, McLuckie, and Bullock (2013), the TEACH Mental Health Literacy Curriculum Guide's implementation will consist of one introductory module and six self-paced professional development sessions. The training sessions will address teacher knowledge and attitudes associated with mental health. The intervention consists of four primary components: (a) pre-test and attitude survey; (b) participation in the one introductory module and the six online curriculum modules; (c) post-test and attitude survey; and (d) overall satisfaction survey (see Table 3.3). Once teacher participants' have responded to the Google form included in the recruitment e-mail, teachers will be enrolled into the Canvas online classroom where the training modules are available. Each module is delivered in an online format and is self-paced. For participants' to have access to the modules, they must first complete the participant agreement section that reviews their rights and responsibilities to the study (see Appendix Q). Completing the participant agreement section will unlock the pre-test knowledge and attitude surveys and must be completed no later than seven

weeks after starting the study. The intervention will allow participants to independently navigate information that aligns with expanding teacher knowledge and attitudes towards mental health needs. This section will describe the (a) pre-test and attitude survey; (b) participation in the six online curriculum modules; (c) post-test and attitude survey; and (d) overall satisfaction survey.

Completion of each section will unlock the next module in the training sequence. Delivery of the curriculum information is embedded in a Nearpod presentation specifically designed to allow participants to engage with reflective activities. Reflective activities embedded into the TEACH modules include story prompts, written reflections, interactive games, visual demonstrations, and videos. The use of Nearpod as a delivery tool will enable this researcher to monitor participant progress throughout each module. Once participants' have completed all the training modules, they will gain access to the post-test knowledge and attitude survey. Participants will receive reflection quizzes to test their understanding of the materials presented, composed of six true-false questions at the end of each module. Completion of the training will occur after participants complete the Overall Satisfaction survey. After the study, e-mails will be sent to each participant, notifying them of their completion and participation in the TEACH Mental Health Literacy Curriculum. Additionally, participants' will receive a certificate of completion from this researcher and will have the option to share the certificate with their supervisors and have a record placed in their file if they choose to do so.

Implementation science embedded in the study includes Bandura's (1986) social cognitive theory related to direct experience and vicarious experience that provide participants with learning modules and behaviors they can connect to and feel comfortable with (Saunders, Evans, & Josi, 2005). Providing instruction to adult learners that embeds social context issues draws from Bandura's (1986) social cognitive theory that believes teachers' can support

students' social-emotional wellness and alter their previous personal biases when they receive opportunities to recognize the significance of PD training concerning their work (Stufflebeam & Shinkfield, 2007).

Pre-test and attitude survey. The pre-test and attitude survey session consist of 30 true-false questions related to mental health knowledge and eight Likert scale questions designed to measure participants' attitudes towards mental health. Access to the pre-test and attitude survey will occur automatically following participants' completion of the study's agreement requirements. The survey's location is in the Canvas online classroom, and completion of the pre-test section must occur before module one is unlocked. Participants' will need to complete the initial survey no later than February 5, 2021. Pre and post-test data will be linked back to one another; therefore, participants' will be assigned an ID number by the researcher for individual score comparisons. Details of the survey outcomes are in chapter five.

Six online curriculum modules. The TEACH Mental Health Literacy Curriculum created by Kutcher et al. (2013) consists of one introductory model and six informational modules that occur in a specific order and include the following topics: Module 1: Introduction and Background, Module 2: Stigma and Mental Health, Module 3: Human Brain Development, Module 4: Understanding Mental Health, Mental Illness and Related Issues in Young People, Module 5: What is Treatment?, Module 6: Seeking Help and Providing Support, Module 7: Caring for Students and Ourselves. The online curriculum modules consist of several key features: (a) an overview providing a summary of the module; (b) a learning objectives list with specific understandings or competencies; (c) a major concepts section presenting the central ideas of the module; (d) recommended pre-engagement topic suggestions for teachers to review before engaging with the module; (e) activities such as written reflections and self-quizzes that

allow participants to interact and engage with the information in each module; (f) a supplementary material section that provides additional resources on the topics from the module; and (g) a self-assessment that allows for a comprehension check of the material in each module.

The online modules format is designed to provide participants' with engaging material that allows for interaction with the material presented and provides "meaning perspectives" (Mezirow, 1978, p. 101). Written reflections, matching games, video reflections, and drawing activities are embedded with the modules to create opportunities for participants to reflect on their past perspectives that may have contributed to a misleading understanding of mental health. Participants' will access all materials through a secure online Canvas classroom that walks participants through the pre-post testing session and instructional modules. Participants' will have access starting in early February 2021 and will need to complete all sessions by late March 2021. Eustache et al.'s (2017) study found that teachers' participating in training related to adolescent mental health needs provided feedback saying that they would prefer a professional development experience that went beyond the two and a half days their study provided. Considering the information presented by Eustache et al. (2017), the TEACH Mental Health Literacy Curriculum training presented in this study is scheduled as a seven-week intervention. Participants' will receive weekly reminder e-mails regarding their progress and timeline for completion. Complete program materials for each module are online at https://static1.squarespace.com/static/5b2bb5c35417fcce408531f8/t/5c2f66a02b6a28fb88beeae1/1546610345149/FINAL+-+Full+online+version+%28Jan+2019%29.pdf

Post-test and attitude survey. The post-test and attitude survey session consists of 30 true-false questions related to mental health knowledge and eight Likert scale questions designed to measure participants' attitudes towards mental health presented to participants' at the start of

the training. The survey is part of the post-test session that takes place after participants complete module seven. Participants' will need to complete the final survey no later than March 19, 2021. Pre and post-test data will be linked back to one another; therefore, participants will require an ID number for individual participant score comparisons. Details of follow-up findings from the surveys are in chapter five.

Overall satisfaction. Administration of the Professional Development Feedback Form via the online Canvas classroom quiz tool will occur after participants' complete the post-test survey session in March 2021. Participants' will respond to four Likert scale questions related to participant satisfaction of the TEACH Mental Health Literacy Curriculum training, eight Likert scale questions related to the impact the training had on participants' professional practice, and six open-ended questions related to the relevancy of the training within the participant's professional context. The survey seeks to answer the outcome evaluation question related to the extent participants' in the TEACH online professional development curriculum view the training as satisfactory towards a professional need.

Data Collection

Data collection will occur using three survey methods: (a) 30 true-false questions; (b) eight Likert scale questions; and (c) 11 Likert scale questions with six open-ended responses (see Table 3.2). To maintain the participant's confidentiality, identifying information is turned off within the online classroom. Storage of all information related to the study is on a password-protected computer that only this researcher can access. Participants' will not be able to view the other participants in the study and will not have access to data related to survey results.

P**re-post-test survey.** The Pre-Post Test Survey will be administered via a virtual Canvas classroom using the built-in quiz tool (February 2021 and March 2021). The survey is composed

of 30 questions that measure participants' knowledge of mental health. Questions are structured as ‘true,’ ‘false.’ Participants’ can achieve a maximum 30-point score on the questionnaire. The survey seeks to answer the process evaluation question related to how teachers’ knowledge of mental health needs changes through participation in the TEACH Mental Health Literacy Curriculum Guide program.

Mental health attitude survey. The mental health attitude survey will be completed via a virtual Canvas classroom using the built-in quiz tool (February 2021 and March 2021). For analysis purposes, the eight-question Likert scale survey results are multiplied by seven to create a possible total positive attitude score of 56 (Kutcher et al., 2013). The survey seeks to answer the process evaluation question related to how teachers’ attitudes towards mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program.

Satisfaction survey. The Overall Satisfaction Survey for Educators consists of 12 Likert scale questions related to participants' overall satisfaction in the TEACH Mental Health Literacy Curriculum Guide program. Participants’ will answer four questions regarding participant satisfaction and eight questions relating to their professional practice impact. Participants’ will provide quantitative ratings on a five-point scale, with one being poor and five being excellent. The survey concludes with six open-ended questions related to the training that allows participants’ to expand on their overall experience. Access to the survey is made available in the online classroom immediately following completion of the post-test surveys.

Data Analysis

The data analysis consists of quantitative analysis using statistical testing and qualitative thematic coding to evaluate the study's four research questions (Creswell, Klassen, Plano Clark, & Smith, 2011). An organized outline of the data analysis procedures in relation to the study’s

constructs occurs using a research summary matrix (see Figure 4.2). This embedded sequential design (Creswell & Plano Clark, 2011) aims to use a two-phase sequential approach to collect and analyze quantitative data at the end of the training to answer the study's different research questions (Creswell & Plano Clark, 2011). Evaluation of the TEACH professional development outcomes, which focuses on improving teacher knowledge of adolescent mental health needs, will occur through a pre-post-test evaluation. Evaluation consists of using a casual comparative/quasi-experimental quantitative design that uses SPSS 17 to conduct a paired-samples t-test to determine if significant differences exist in knowledge and attitudes between pre-and post-surveys.

How do participants rate their level of overall engagement in the TEACH online professional development training?

Scoring of the Overall Satisfaction survey will occur using assigned numerical values for each response. Cronbach's alpha will be applied to determine internal consistency amongst participants' responses. Kendall's coefficient of concordance, a non-parametric statistic, will assess the agreement among participants' satisfaction with the TEACH Mental Health Literacy Curriculum (Corder & Foreman, 2009). The use of descriptive statistics will take place to visually examine participants' views of engagement in the TEACH Mental Health Literacy Curriculum.

Qualitative data coding. Qualitative data in the form of open-ended questions on the Overall Satisfaction survey will be collected, read, and reread to develop a general understanding of the responses through the use of a deductive and inductive coding process. (Creswell & Clark, 2011). The establishment of thematic coding will occur using the Textalyser tool. The Textalyser is an online tool that identifies the five most common words and frequency statements recorded

in participants' open-ended responses. Implementation of a prominence rating assigned by Textalyser will determine the significance of participant's statements and help determine reoccurring topics. Identification of salient themes will occur using a spreadsheet system by Hotjar specifically made to examine open-ended responses. The aim of analyzing the qualitative data using Grenier's (2018) Hotjar analytical is to gain insight into emergent themes embedded within-participant responses specific to their rating of engagement in the intervention. An analytical spreadsheet will support creating a qualitative codebook used to examine participant ratings of engagement. Removal of participants' identifying factors will occur before data analysis.

How many participants in a self-paced online professional development training completed the training in its entirety?

Canvas analytics will examine the amount of time participants are logged on and engaged with the training materials. Participant completion of the intervention will be analyzed using a percentage and compared to the number of participants who did not complete the training protocol. Descriptive statistics will demonstrate the level of dose experienced by participants.

How does teachers' knowledge of mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?

Statistical tests. Measurement of the TEACH Mental Health Curriculum Guide pre and the post-test survey will occur using a questionnaire comprised of 30 questions, and requires educators to choose from one of two options: 'true' or 'false.' Each correct answer will receive one point for a total possible score of 30 points. Data analysis of participants' scores will occur using SPSS statistics to conduct a paired-samples t-test to determine if a significant difference

exists in mental health knowledge between pre and post-test surveys. Cronbach's alpha will determine internal consistency amongst participants' responses.

How do teachers' attitudes towards mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?

Statistical tests. The Devaluation of Consumers scale (Appendix M) asks participants eight questions assessing an individual's attitudes toward mental health and mental illness. The questions measuring attitude ask participants to select from a 7-point Likert scale ranging from 'strongly disagree' to 'strongly agree.' Calculation of a total positive score out of 56 will determine participants' attitudes toward mental health and mental illness. Higher scores are associated with positive attitudes and less stigma. Three questions will be reverse-scored to ensure the engagement of participants with the survey questions. Data analysis of participants' scores will occur using SPSS statistics to conduct a paired-samples t-test to determine if a significant difference exists in mental health knowledge between pre and post-test surveys. Cronbach's alpha will determine internal consistency amongst participants' responses.

Conclusion

The TEACH Mental Health Literacy Curriculum intervention design aims to improve educators' mental health literacy related to understanding mental health disorders and their prescribed treatments, reduce mental health stigma, and increase help-seeking efficacy within the school setting. Implementation of the TEACH Mental Health Literacy curriculum will expand current research examining teacher training programs associated with adolescent mental health and provide context to studies in the United States. The implementation of an embedded sequential mixed method design approach supports the research questions of this study. Chapter four examined the TEACH Mental Health Literacy curriculums intervention components that

include participant involvement with (a) pre-test and attitude survey; (b) participation in the one introductory module and the six online curriculum modules; (c) post-test and attitude survey; and (d) overall satisfaction survey (see Table 3.3). The intervention framework includes Mezirow's (1978) transformation theory, using Nerstrom's (2014) Transformative Learning Model, and Bandura's (1986) social cognitive theory to provide a foundation for examining the impact professional development can have on teachers' ability to increase their knowledge and shift their attitudes to mental health.

Measures include surveys, open-ended feedback, and participation in one introductory and six modules to determine teachers' mental health knowledge and attitudes towards mental health that impact their ability to support students with mental health disorders within the school setting. Data analysis will consist of quantitative analysis using statistical testing and qualitative thematic coding to evaluate the study's three research questions (Creswell, Klassen, Plano Clark, & Smith, 2011). Findings and discussions from the study will occur in chapter five.

Chapters 5

Findings and Discussion

The purpose of this dissertation study is to facilitate the development of teacher knowledge and attitudes towards mental health needs using an intervention focused on enhancing teacher's mental health literacy, using the TEACH Mental Health Literacy Curriculum (Kutcher, Wei, McLuckie, & Bullock, 2013). The Mental Health & High School Curriculum Guide created by Kutcher et al. (2013) consists of one introductory model and six informational modules that occur in a specific order. Data collection occurred by applying a pre-test and Devaluation of Consumer Scales survey, post-test and Devaluation of Consumer Scales survey, and Overall Satisfaction survey. This chapter presents the implementation, findings, and discussion of outcomes from this study. Additionally, a discussion focused on strengths, limitations, and implications for future practices and research. As stated in Chapter four, the following research questions are the basis for analyses within this chapter.

RQ1: How do participants rate their level of overall engagement in the TEACH online professional development training?

RQ2: How many participants in a self-paced online professional development training completed the training in its entirety?

RQ3: How does teachers' knowledge of mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?

RQ4: How do teachers' attitudes towards mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?

Process of Implementation

The intervention was scheduled to take place over seven weeks but occurred over four weeks from late February 2021 to mid-March 2021 due to circumstances related to COVID-19. Fifteen participants began the TEACH Mental Health Literacy Curriculum training. However, of the 15 participants, only 12 participants completed the training in its entirety and contributed both pre-and post-intervention data to evaluate their knowledge and attitudes towards mental health. The same 12 participants provided data related to the overall satisfaction survey after the training. The 15 teacher participants (six male and nine female) were all certified secondary teachers employed within the same district (see Table 5.1). Having less than 74 participants resulted in the study not achieving its desired power.

During the intervention period, this researcher facilitated regular communications with participants' using the virtual classroom messaging tool. The participants' completed one introductory model and six informational modules specifically related to mental health. Additionally, participants' completed self-assessment quizzes at the end of each module to assess their understanding of the information presented in each module. Data collection came from participants' completing a pre-test and Devaluation of Consumer Scales survey, post-test and Devaluation of Consumer Scales survey, and Overall Satisfaction survey. Participants' navigated the entirely virtual training at a pace that best met their individual needs, with an original completion due date of April 14, 2021. However, due to East Coast Public Schools mandates related to COVID-19 occurring after the study's start, participants' had voluntarily submitted materials by March 20, 2021, or had notified this researcher of their plan to withdraw from the study. Below is an outline describing how this researcher implemented the intervention for this study.

Participant Set-Up

Participants' were recruited through the outreach to all secondary principals' in East Coast Public Schools where the study was occurring. Principals' received an e-mail outlining the details of this study and were asked to forward the e-mail to their staff through the school's staff e-mail communication system. Included in the principals' e-mail to share with potential participants was a link to a Google form. The Google form allowed participants' to communicate their interests directly with this researcher. Once this researcher received notification from participants' via the Google Form, the participant was enrolled in this researcher's online training classroom and provided a generic e-mail from this researcher that notified them of their enrollment in the study and a timeline for completion. Recruitment took place over two weeks, and a reminder e-mail related to participation in the study was sent to each principal for distribution to staff three days before the two-week recruitment cut-off.

Virtual Setting

The virtual setting was developed using an online learning platform called Canvas. Canvas was already part of every teacher's operating procedures in East Coast Public Schools and therefore did not cause any learning curve or operational difficulties for the users. Canvas provided tools for this researcher to track each participant's amount of time on the training site and allow for modules to be locked and regulated based on the participants' completion of previous modules. Data collection tools were embedded directly into Canvas and allowed participants' to be fully independent once they were officially enrolled in the training site.

Training Completion

Completion of the study was to occur over a seven-week timespan. However, complications related to COVID-19 altered the study's timeline and resulted in data collection

after four weeks. A week after the study's research collection phase had begun, a district announcement was made notifying teachers' that they would be returning to in-person learning after a year of remote working. Of the 23 participants who had initially signed up and provided consent to be part of the study, only 15 participants began the intervention protocol. Of the 15 participants', only 12 individuals' completed the study in its entirety. All other participants' notified this researcher of their decision to be removed from the study, noting stressors related to the demands of returning to their physical school building.

Findings

Quantitative findings were collected through surveys and time management tools supplied by Canvas. Qualitative findings came from the Overall Satisfaction survey, and descriptive statistics used to code the qualitative data and support quantitative findings. Determinations from the study are organized below by research question.

Research Question One: Teacher Engagement in Professional Development

The quantitative and qualitative findings for research question one (RQ1) indicate that 92% of the participants found the TEACH Mental Health Literacy Curriculum training engaging, despite two participants feeling that the TEACH Mental Health Literacy Curriculum materials were either too long or not applicable to their position. In this section, the question, "How do participants rate their level of overall engagement in the TEACH online professional development training?" is explored. Zhang et al. (2011) suggest evaluating the extent to which the study participants are willing to accept the presented information and implement it into practice to gain a greater sense of their engagement with a study and monitor the implementation process.

Analysis of teachers' overall engagement in the TEACH Mental Health Literacy online professional development training took place using the Overall Satisfaction Survey. The survey is designed as a five-point Likert scale (1=poor; 5=excellent) and consists of 12 Likert scale questions related to participants' overall satisfaction in the TEACH Mental Health Literacy Curriculum Guide program. To determine the TEACH program's perceived overall engagement level, participants' answered four Likert scale questions related to participant satisfaction and eight questions related to their professional practice impact (see Table 5.1). The survey concluded with six open-ended questions related to the training that allowed participants' to expand on their overall experience, with emphasis placed on the questions asking, "What do you feel is your level of engagement with the material in relation to the time spent participating in the training?" (see Table 5.2).

To test the survey's internal consistency, Cronbach's alpha was used and resulted in an excellent internal consistency ($\alpha = .97$). To evaluate the agreement among participants in relation to their survey response questions specific to engagement with the TEACH Mental Health Literacy Curriculum, Kendall's coefficient of concordance, a non-parametric statistic, was used (Corder & Foreman, 2009). Analysis of participants satisfaction survey determined that a positive relationship existed between participants and their survey responses associated with engagement in the TEACH Mental Health Literacy Curriculum training (Kendall's W= 0.16). Additional analysis of participant responses from the Overall Satisfaction Survey was treated as continuous variables. The focus was placed on descriptive statistics examining the survey responses' overall satisfaction mean, standard deviation, and p-value (M= 4.62, SD= .77, p= .00).

Data outcomes from the Overall Satisfaction survey demonstrated participants' general satisfaction with the TEACH Mental Health Literacy Curriculum training. On average,

participants' ranked the various sections related to participant satisfaction and impact on professional practice a four out of five possible points. The question asking participants' if "all necessary materials/ equipment/ resources were provided or made readily available" had the highest positivity response (*M*= 4.83, *SD*= .57). The Overall Satisfaction Survey had the potential to receive a maximum score of 60 from participants. Analysis of participants' feedback demonstrated a high level of engagement and benefited from participating in the training (*M*= 55.42, *SD*= 7.05).

Qualitative data examining participants' overall engagement in the TEACH Mental Health Literacy Curriculum training was collected using six open-ended questions on the Overall Satisfaction Survey. To analyze the qualitative data collected from participants, survey responses were collected, read, and reread to develop a general understanding of the responses using a deductive and inductive coding process. (Creswell & Clark, 2011). The establishment of thematic coding occurred using the online Textalyser tool that identified the five most common words and frequency statements recorded in participants' open-ended responses. Focus was placed on question five in the survey, which asked participants, "What do you feel is your level of engagement with the material in relation to the time spent participating in the training?". Salient themes found by the Textalyser tool include "Reflection/Re-Evaluation," "Highly Engaging," and "Overall Understanding." Themes went into Grenier's (2018) Hotjar spreadsheet system to track the frequency in which teachers had similar keywords in their responses.

Qualitative data outcomes (see Table 5.3) associated with participant engagement with the training found that 68% of the comments related to the level of engagement with the material focused on participants' feelings of being engaged with topics presented in the TEACH Mental Health Literacy Curriculum training. The majority of participant responses were indicative of

comments such as, “This was very highly engaging, and while there is a lot of material to get through, it is all very important and connects together well!”. Further investigation of participants’ level of engagement found that 15% of participant responses included mentions of time restraints related to their return to the physical school building, that contributed to feelings of being disengaged in the intervention, “I would have liked a longer period to work on the material, but with all that is being asked of me during the pandemic, and return to school, I did not have the time to give it my full attention.” Additionally, one participant mentioned that they felt the training was too long, “Very engaging at first, but it is too long, too wordy.” While 8% of the participants thought that the training did not apply to their role, “My level of engagement is marginal, mental health issues are handled by professional staff in schools.”

Research Question Two: Teacher Completion of Professional Development

The quantitative findings for research question two (RQ2) indicate that participants’ did not use the full extent of the time allotted to them to complete the online training. The 12 participants who completed the study in its entirety spent an average of five and half hours towards completing the online training. Analyzing teacher participants' experiences with the TEACH Mental Health Literacy Curriculum also includes examining the implementation of dose, the degree to which participants complete the training intervention (Dusenbury et al., 2003). Evaluation of dose within this study is examined through the question, “How many participants in a self-paced online professional development training completed the training in its entirety?”.

Steckler et al. (2002) define dose delivered as the amount of time each participant spends on provided training modules. Tracking the time spent engaged in the TEACH Mental Health Literacy Curriculum was monitored using Canvas online classroom tools. Of the 23 participants’

initially enrolled in the online training classroom, 15 participants' engaged in the online training. Of the 15 participants that provided data, only 12 participants', or 52% of the original participants', completed the training in its entirety. Participants' were scheduled to have seven weeks to engage with the materials fully and complete the training at their own pace. The projected amount of time allotted for completing the TEACH Mental Health Literacy Curriculum was eight and a half hours. After four weeks, the 23 original participants' had either completed the training or notified this researcher of their decision to withdraw from the study.

Research Question Three: Teacher Knowledge of Mental Health Needs

The quantitative findings for research question three (RQ3) indicate that there was a statistically significant improvement ($p < .03$) in participants' knowledge of mental health as measured by the TEACH post-test assessment. In this section, the question, "How does teachers' knowledge of mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?" is explored. As part of the demographics survey, participants' were asked if they had participated in previous mental health training. Knowing if participants had previous mental health training exposure provides context in relation to understanding participants' prior knowledge of mental health related to understanding and identifying factors associated with mental health. Six of the participants (40%) indicated that they had not previously participated in prior professional development training related to mental health.

To determine if a difference existed in participants' mental health knowledge pre- and post-assessment data from the pre/post-test knowledge assessment was analyzed using a paired-samples t-test in SPSS 17. Quantitative outcomes (see Table 5.4) from the paired-sample t-test indicate that there was a statistically significant increase of mental health knowledge between pre

(*M*= 19.50, *SD*= 3.39) and post-test (*M*= 20.75, *SD*= 3.59) assessment scores ($t = 2.38$, $p < .03$). Across the pre- and post-test results, scores ranged from 13 to 27, with 30 being the highest score possible. In total, seven of the participants (58%) improved their mental health knowledge scores by one or more points between pre-test and post-test. The increase in participant scores is significant in demonstrating the impact exposure to the TEACH Mental Health Literacy Curriculum has on participant understanding of the presented materials. Three participants' did not submit post-test scores for comparison to their pre-test scores. Using Cronbach's alpha, the current sample's internal consistency reliability is $\alpha = .92$, which is an excellent internal consistency.

Although the qualitative data collected from participants' was not specific to the knowledge survey, several participants' did provide comments specific to topics they felt the TEACH Mental Health Literacy Curriculum supported their understanding of. A question on the Overall Satisfaction Survey, asks participants "What new ideas have you gained and how do you plan to implement these new ideas in your job or training capacity?". Responses from participants' include several examples of knowledge acquisition from the stance of the participant and include responses such as, "I enjoyed learning more about stigma, and the different ways stigma can look" and "Knowing more about self-care and its importance was an important topic for me to read about, especially given all that teachers and students are currently going through."

Research Question Four: Teacher Attitudes Towards Mental Health Needs

The quantitative findings for research question four (RQ4) indicate that there was a statistically significant improvement ($p < .04$) in participants' attitudes of mental health as measured by the TEACH post-test assessment. In this section, the question, "How do teachers'

attitudes towards mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?" is explored. To understand the effect the TEACH Mental Health Literacy intervention had on participants' attitudes, each participant completed The Devaluation of Consumers scale before the start of the intervention. The Devaluation Consumer scale asks participants eight questions designed to assess mental health and mental illness attitudes. Participants' used a 7-point Likert scale ranging from 'strongly disagree' to 'strongly agree.' Calculation of a total score out of 56 determines participants' attitudes toward mental health and mental illness, with higher scores associated with positive attitudes and less stigma.

To determine if a difference existed between pre and post devaluation surveys, SPSS 17 was used to conduct a paired-samples t-test to examine participants' attitudes towards mental health. Quantitative outcomes (see Table 5.5) from the paired-sample t-test indicate that there was a statistically significant improvement in attitudes towards mental health between pre (M= 47.83, SD= 8.94) and post-test (M= 50.58, SD= 8.44) assessment scores (t = 2.22, p <.04). Across the pre- and post-test survey results, scores ranged from 26 to 56, with 56 being the highest score possible. In total, seven of the participants (58%) improved their attitudes towards mental health by one or more points between pre-test and post-test. The increase in participant scores is significant in demonstrating the effect exposure to the TEACH Mental Health Literacy Curriculum has on participants' views towards mental health topics. Three participants' did not submit post-test attitude surveys for comparison to their pre-test score. Using Cronbach's alpha, the current sample's internal consistency reliability is $\alpha = .79$, an acceptable internal consistency. Using the same measure, a previous psychometric study extracted two factors of the attitude measure that accounted for 50.41% of the variances, with internal consistency reliability $\alpha = .70$ (Wei, Baxter, & Kutcher, 2019).

Conclusion

This study's findings indicate that exposure to structured information that asks teachers' to expand, question, and creates new outlooks, as aligned with Nerstrom's (2014) Transformative Learning Model, may increase participants' knowledge and affect their views of mental health. Research question one sought to understand the level of overall engagement participants perceived through their interaction with the TEACH online professional development training. Qualitative findings demonstrate an overall satisfaction from participants' and that a positive relationship existed between participants' and their survey responses associated with engagement (Kendall's W= 0.16). The TEACH Mental Health Literacy Curriculum design provides participants with opportunities for exposure to new perspectives. The exposure to new perspectives engages participants' in questioning their previous assumptions (Mezirow, 1978; Nerstrom, 2014). By exposing participants' to an activity meant to break down old thought patterns, there is often a chance for resistance (Larrivee, 2000). However, despite the potential for resistance to be present in the data collected, participants demonstrated engagement in the transformative learning process by critically assessing their previous assumptions and being open to information processing that challenges those assumptions (Mezirow, 1978; Nerstrom, 2014). Additionally, qualitative outcomes from question one found that 68% of participants' viewed the TEACH Mental Health Literacy Curriculum as engaging and worth the time they spent emersed in the materials.

In response to research question one, participants' discussed their level of engagement with the module associated with mental health stigma, "I very much enjoyed the module related to stigma and mental health, as I have witnessed other professionals and students within my school buildings, and even my own coworkers share their stigma and pre-conceived notions

without understanding who my students are aside from their disability. I want to continue sharing that information to ensure that everyone understands that we all are at risk from having a mental health challenge, as well as anyone who does have a diagnosis is most of all still human - they are not less!". Bandura (1977) discusses the impact of positive and negative experiences on an individual's self-efficacy and how that experience can affect how individuals implement a given task related to their experience. Positive data outcomes associated with participant engagement with the TEACH Mental Health Literacy Curriculum are important since how participants view their experience can directly impact their self-efficacy beliefs towards successfully implementing the information learned during the training.

Research question two, which examines participants' overall completion of the TEACH Mental Health Literacy Curriculum, focuses on the amount of dose or time participants' spent towards completing the TEACH training. Of the original 23 participants' that consented to participate in this research study, only 52% completed the training in its entirety. Analysis of participants' time spent engaged with the training materials reveals that participants' did not utilize the maximum amount of time provided to them for completion of the training and may affect the full potential participation in the TEACH Mental Health Literacy Curriculum can have on participants' knowledge of and attitudes towards mental health. However, despite participants' not utilizing the amount of time provided to them in its entirety, outcomes from the data demonstrate a significant improvement in both participant's knowledge of and attitudes towards mental health. Given the improvement in participants' outcomes, reducing the time provided to participants' to complete the training in the future could occur.

Research question three specifically examines the impact the TEACH Mental Health Literacy Curriculum has on increasing participant knowledge of mental health. The quantitative

findings for research question three indicate a statistically significant improvement ($p < .03$) in participants' knowledge of mental health as measured by the TEACH post-test assessment. An examination of the quantitative data suggests that participation in the TEACH Mental Health Literacy Curriculum can increase participants' mental health knowledge. Participant awareness of their change in knowledge primarily occurred during examining participants' qualitative responses provided on the Overall Satisfaction Survey. One participant reported that "Understanding the importance of student well-being and mental health will help shape responses to various situations. It will enhance flexibility with assignments and workload." The increase in participant knowledge can account for participants' willingness to acquire new knowledge and act on their newfound beliefs. This acquisition of new knowledge is one of the phases discussed by Mezirow (1978) concerning his transformation learning theory. The increase in participants' scores from their mental health knowledge pre-assessment to post-assessment suggests that participants' recognized the need to question their previous assumptions about mental health and develop new assumptions towards mental health that allow them to understand better the needs of those impacted by mental health.

Research question four examines the impact the TEACH Mental Health Literacy Curriculum has on improving participant attitudes towards mental health. The quantitative findings for research question four indicate a statistically significant improvement ($p < .04$) in participants' attitudes towards mental health as measured by the Devaluation of Consumer Scales survey. However, it is important to note that the elevated p-value in this analysis may be due to three of the survey's questions being reversed analyzed and participants' failure to read the statement. Like the increase in participant knowledge of mental health, the improvement in participant attitudes can also link to the phase of Mezirow's (1978) transformation theory, where

participants' are willing to acquire new information and act on their newfound beliefs. The increase in participants' scores from their Devaluation Consumer Scale pre-assessment to post-assessment suggests that participants' recognized the need to question their previous assumptions related to individuals with mental health needs and develop new assumptions that allow them to understand better the needs of those impacted by mental health disorders.

Although this study was not structured to assess participants' application of their increased knowledge and improved attitudes towards mental health, this researcher's distal outcome includes improving participants' self-efficacy in their ability to recognize and respond to students in need of mental health support. This goal of increased self-efficacy comes from the merging of Mezirow's (1978) final phase in his transformation learning theory that discusses individuals gaining confidence from continued successful application of their newly developed assumptions, and Bandura's (1977) self-efficacy theory that discusses the impact emotional states can have on an individual's ability to gain and build confidence. As participants recognize and act on their students' mental health needs, they will likely experience feelings of emotional satisfaction that continue to build upon their self-efficacy associated with understanding student mental health needs.

Discussion

The section below presents the findings from this study and links the outcomes with the current literature surrounding professional development practices specific to increasing teacher understanding of adolescent mental health needs. This section expands on the potential growth associated with mental health topics that teachers' can experience through participation in the TEACH Mental Health Literacy training. Using Mezirow's (1978) transformation theory in conjunction with Nerstrom's (2014) Transformative Learning Model and Bandura's (1986)

social cognitive theory as a framework for the TEACH intervention, major findings from this study are below.

Teacher Development

For this study's purposes, teacher development depended on participant growth in teacher knowledge of mental health and attitudes towards mental health. Outcomes from this study suggest that there was a statistically significant increase of mental health knowledge between participants in the TEACH Mental Health Literacy Curriculum's pre (M= 19.50, SD= 3.39) and post-test (M= 20.75, SD= 3.59) assessment scores (t = 2.38, p <.03), despites 60% of participants' having exposure to previous mental health training. Overall, seven participants' (58%) improved their mental health knowledge scores by one or more points between pre-test and post-test. Three participants' did not submit post-test scores for comparison to their pre-test scores.

The significant improvement (p < .036) in participants' knowledge of mental health as measured by the TEACH post-test assessment would indicate that participation in a professional development program occurring through the TEACH Mental Health Literacy Curriculum can strengthen participants' knowledge of mental health factors related to recognizing, understanding, and acting towards signs and symptoms of mental health disorders. Given the need discussed in the problem of practice to identify supports focused on identifying early sign of mental health concerns in secondary school-aged students, professional development using the TEACH Mental Health Literacy Curriculum can address gaps in teacher's mental health knowledge that could potentially increase earlier identification of students' displaying mental health needs. (Kessler et al., 2005; Kutcher et al., 2015). The increase in teacher knowledge of mental health and participants' attitudes occurred despite the dose received not being ideal.

Participants chose not to utilize the full amount of time provided to them for completion of the training, and as a result, may have missed opportunities to engage with materials critical to increasing knowledge or improving attitudes towards mental health.

Participants' completed the Devaluation of Consumers scale survey, which measures participants' attitudes towards mental health factors before and after completing the intervention. A higher score (out of 56) on the survey is associated with having a positive attitude towards mental health and views that are less stigmatizing of those with mental health needs. Outcomes from the comparison of participants' pre-and post-intervention results demonstrated a statistically significant improvement in attitudes towards mental health between pre (M= 47.83, SD= 8.94) and post-test (M= 50.58, SD= 8.44) assessment scores (t = 2.22, p <.04). Seven participants' (58%) improved their mental health attitudes by one or more points between pre-test and post-test. The significant improvement (p < .04) in participants' attitudes towards mental health factors as measured by the Devaluation of Consumer scale would indicate that participation in the TEACH Mental Health Literacy Curriculum has the ability to improve participants' attitudes towards mental health and those diagnosed with mental health disorders. All teachers develop personal biases that shape their attitudes towards mental health issues (Almager, 2018). Providing access to professional development programs such as the TEACH Mental Health Literacy Curriculum provides teachers' with an opportunity to engage with reflective activities associated with how their attitudes towards mental health impact their reactions to students' displaying a need for support (Gabbidon et al., 2013; Frauenholtz et al., 2015).

The increase in teacher knowledge of mental health and the improvement of their attitudes towards mental health occurred through the type of engagement Nerstrom (2014) explained as being an opportunity for the expansion of participants' understanding of a topic

through the questioning of standing beliefs and the creation of a new outlook. In this study, participants' were provided expansion opportunities through engagement with the training material. Activities for engagement included written reflections based on personal experience and story prompts, matching games, video reflections, and visual aids. By creating a space for teachers to expand, question, and create new outlooks, they can enter the transformative learning cycle (Nerstrom, 2014). Along with consideration of Bandura's (1986) social cognitive theory, outcomes from the TEACH Mental Health Literacy Curriculum training support Stufflebeam and Shinkfield's (2007) belief that teachers can support students social-emotional wellness and alter their previous personal biases when they receive opportunities to recognize the significance professional development can have on their work and understanding of a given topic.

Teacher development towards understanding mental health needs may have occurred through participation in this study and changes in participants' personal views of mental health. This initial change in personal views is embedded in Mezirow's (1991) transformation theory and demonstrates how participation in professional development can shape educators in becoming authentic, individuated, and critically reflective practitioners (Cranton & King, 2003). This study's objective was for participants' to shift their views of mental health by facilitating the development of teacher knowledge and attitudes towards mental health needs using an intervention focused on enhancing teacher's mental health literacy, using the TEACH Mental Health Literacy Curriculum (Kutcher, Wei, McLuckie, & Bullock, 2013).

Implications for Practice and Future Research

Implications for practice related to the TEACH Mental Health Literacy Curriculum demonstrate a substantial potential for the TEACH program to increase teacher knowledge surrounding mental health and improve teachers' attitudes towards how they view mental health

disorders. Conclusions from participants demonstrate how participation in the study could influence their future work with students. For example, one participant expressed the value they saw in the TEACH Mental Health Literacy Curriculum and said, “This curriculum was great! I wish all educators would have to take it! With the ideas that I have gained from the training, I want to help my students (who have mental health diagnoses) better understand themselves, how the world perceives them, and how best to self-advocate for themselves after high school. This is my main focus in working with students, but the information presented gave me more significant facts to assist my students in understanding their own mental health and the world around them”.

Implications from this study demonstrate the added value in accessing the TEACH Mental Health Literacy Curriculum through an online platform. Although the TEACH program can currently be accessed online through The University of British Columbia, there is no online programming tailored for individuals located outside of Canada. The TEACH Mental Health Literacy Curriculum format for this study allowed for the information presented to be specific to educators in the United States. The use of Nearpod, an online presentation tool designed to aid educators’ in creating interactive lessons, allowed for the placement of engaging and reflective activities to be placed within the training’s modules. Additionally, the use of Nearpod allows the facilitator to monitor participant engagement and design the module in such a way that participants’ cannot skip past the sections where they must engage with the content. Participants’ in the study demonstrated a shift in their development of mental health understanding using the tools utilized for delivery even though 60% of the participants participated in a previous mental health training. Participant feedback includes considering reducing the amount of reading associated with the learning modules and using engaging tools such as Nearpod. The TEACH Mental Health Literacy program results reveal a promising solution for providing educators with

the information they require to aid students experiencing mental health concerns in the classroom.

Given that most TEACH Mental Health Literacy Curriculum participants found value in the program and will likely transfer their new knowledge and understanding into the classroom, there is a higher likelihood that more students' in need of mental health help are identified for support sooner. Literature discussing interventions specific to supporting screening procedures has been shown to improve teacher knowledge of mental health symptoms (Von Der Embse, Kilgus, Eklund, Ake, & Levi-Neilsen, 2018). Placing importance on providing teachers with professional development opportunities that emphasize self-efficacy and teacher's perception of their abilities should occur (Bandura, 1993). When teachers receive opportunities for support and guidance on the topic of mental health, research shows improvement in their ability to identify and respond to students in need of mental health support (Armstrong, Price, & Crowley, 2015). By making professional development specific to understanding adolescent mental health needs a priority, teachers' will gain the skills necessary to help destigmatize mental health and identify students' displaying mental health symptoms at earlier stages.

Future research related to the TEACH Mental Health Literacy Curriculum should increase the sample size of the participants studied. Due to outcomes associated with COVID-19, participants' in the study were asked to return to their physical work locations after a year of teaching remotely soon after the start of the study. As a result, participation was impacted and ultimately led to having a low sample size. However, there is minimal research examining the impact of mental health training programs on teachers' ability to support students with mental health needs in the United States. Therefore, additional research with a full sample size and

limited distracting factors is needed to further the research on the impact mental health training has on a teacher's ability to navigate mental health in the classroom.

The continued use of online training will also need to be evaluated. The TEACH Mental Health Guide Curriculum was used to provide the necessary training information to the participants'. However, participants' reported that the materials were heavy on reading and that they would have preferred a more interactive experience. Future consideration should be given to a hybrid model that allows school teams to work on interactive modules individually but requires school teams to meet once a week during the training to discuss the topics being presented and determine best practices for implementing the information they are learning within the classroom setting.

Furthermore, future studies would benefit from a partnership with a school-based mental health facilitator. Several of the topics presented discuss information related to psychosis and the personal mental health of the teacher. Having a mental health professional on the team of trainers' would help clarify questions or support a participant that may become triggered by the information presented in training. Having a professional as part of the training team would also allow for a more hands-on approach and allow for coaching opportunities in and out of the classroom setting. The study participants noted areas of the study that they felt would help support students in the classroom setting, such as learning about specific signs and mental health symptoms. However, more research is needed to explicitly determine the long-term impact the training has on participants' ability to identify and support students' displaying mental health needs symptoms. Future research should include follow-up sessions and opportunities for observations, teacher feedback, and student feedback.

Strengths and Limitations of Design

Strengths. An embedded sequential mixed method design allowed for a two-phase sequential approach that collects and analyzes quantitative data at the beginning and the end of the training intervention. The collection of qualitative support data at the end of the training provides the information necessary to answers the studies process evaluation question (Creswell & Plano Clark, 2011). Use of an embedded sequential mixed method design allowed for best practices in organizing the data related to the process and outcome evaluation research questions. The use of quantitative measures before and immediately following the intervention allowed for a structured analysis of data related to participants' knowledge of and attitudes towards mental health. Qualitative measures specific to participants' overall satisfaction allowed for open-ended feedback that allowed participants to express specific information about the value participants saw in the study. Participation in a natural setting versus a research setting also contributed to the strength of the data collected. The use of an entirely virtual model can potentially reduce the level of bias experienced by participants' compared to the potential level of bias participants' may have had towards the intervention had they been present in a room with peers and this researcher (Osgood, Kase, Zaroukian, & Quartana, 2020). Additionally, using an entirely virtual model allowed participants' to complete the training independently and provided participants flexibility concerning their work and personal schedules.

Limitations. This embedded sequential mixed method design's limitations include having a small sample size of teachers assigned to the same school district. The small sample size of the study has the potential to threaten data validity. In addition to a strict timeline that may have affected response rates and teacher participation, implications of COVID-19 have directly impacted this study. The announcement made by East Coast Public Schools for teachers' to return

to the physical school building after remote teaching for over a year due to COVID-19 occurred during the data collection process of this study and played a direct part in the small sample size of participants'. Examining this study's information will need to account for the small sample limiting generalizability.

Additionally, limitations may arise related to participants' selection and their accessibility or proximity to this researcher. Having teachers from the same district may result in a bias based on influences from how the teachers work and live. Furthermore, there is a potential for selection bias, given that the participants who volunteered for the study may have been more likely to value the material or topics covered in the study compared to others that did not volunteer. The absence of a control group and random assignment limits the ability to conclude that the observed differences in teachers' knowledge and attitudes towards mental health result from their participation in the TEACH Mental Health Literacy Curriculum Guide training. However, the pre-test evaluation design immediately preceded the intervention, and the post-test immediately follows the intervention makes non-training factors unlikely. Finally, evaluation is limited in measuring persistence over time in teacher's knowledge and attitudes towards mental health and would benefit from evaluations that collect data on whether improvements made by participants decline over time.

References

Almager, I. (2018). Teacher bias in the classroom: Utilizing personal experiences. *SoJo Journal: Educational Foundations and Social Justice Education*, *4*(1), 17–29. https://www.infoagepub.com/sojo-issue.html?i=p5cacf1727a31d

Anderson, M., & Cardoza, K. (2016). Mental health in schools: A hidden crisis affecting millions of students. *NPR Education*. https://www.npr.org/sections/ed/2016/08/31/464727159/mental-health-in-schools-a-hidden-crisis-affecting-millions-of-students

Anderson, M., Werner-Seidler, A., King, C., Gayed, A., Harvey, S. B., & O'Dea, B. (2018). Mental health training programs for secondary school teachers: A systematic review. *School Mental Health, 11*(3), 489–508. https://doi.org/10.1007/s12310-018-9291-2

Andrews, S. G. (1991). Informing schools about children's chronic illnesses: Parents' opinions. *Pediatrics, 88*(2), 306-311. https://pediatrics.aappublications.org/content/88/2/306.abstract

Armstrong, D., Price, D., & Crowley, T. (2015). Thinking it through: A study of how pre-service teachers respond to children who present with possible mental health difficulties. *Emotional and Behavioural Difficulties*, *20*(4), 381-397. https://doi.org/10.1080/13632752.2015.1019248

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117–148. https://doi.org/10.1207/s15326985ep2802_3

Bandura, A. (1997). *Self-Efficacy: The Exercise of Control.* New York, NY: W. H. Freeman.

Bandura, A. (1997). The anatomy of stages of change. *American Journal of Health Promotion*, *12*(1), 8–10. https://doi.org/10.4278/0890-1171-12.1.8

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, *52*(1), 1-26. https://doi.org/10.1146/annurev.psych.52.1.1

Baranowski, T., & Stables, G. (2000). Process evaluations of the 5-a-day projects. *Health Education & Behavior, 27*(2), 157-166. https://doi.org/10.1177109019810002700202

Behrstock, E., & Clifford, M. (2009). Leading gen y teachers: Emerging strategies for school leaders. TQ Research & Policy Brief. *National Comprehensive Center for Teacher Quality*. https://eric.ed.gov/?id=ED520777

Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational Researcher, 33*, 3-15. https://doi.org/10.3102/0013189x033008003

Bowers, H., Manion, I., Papadopoulos, D., & Gauvreau, E. (2013). Stigma in school based mental health: Perceptions of young people and service providers. *Child and Adolescent Mental Health, 18*(3), 165-170. https://doi.org/10.1111/j.1475-3588.2012.00673.x

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). Thematic analysis. *Handbook of Research Methods in Health Social Sciences*, 843-860. https://doi.org/10.1007/978-981-10-5251-4_103

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist, 32*(7), 513–531. https://doi.org/10.1037/0003-066x.32.7.513

Bronfenbrenner, U. (1979). *The ecology of human development*: *Experiments by nature and design*. Cambridge, MA: Harvard University Press.

Burwell, S. M. (2018). Generation stress: The mental health crisis on campus. *Foreign Affairs, 97*(6), 150-157.

http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=132341938&site=ehost-live&scope=site

Campbell, D. T. & Fiske, D. W. (1959). Convergent and discriminant validation by the multi-traits multi-method matrix. *Psychological Bulletin. 56*(2), 81–105. https://doi.org/10.1037/h0046016

Campbell, D. T., & Stanley, J. C. (1963). Experimental and quasi-experimental designs for research. *Handbook of research on teaching,* 171-246. https://wagner.nyu.edu/files/doctoral/Campbell_and_Stanley_Chapter_5.pdf

Carr E. R., Bhagwat R., Miller R., Ponce A. N. (2014). Training in mental health recovery and social justice in the public sector. *The Counseling Psychologist, 42*(8), 1108–1135. https://doi.org/10.1177/0011000014555200

Carr, W., Wei, Y., Kutcher, S., & Hefernan, A. (2017). Preparing for the classroom: Mental health knowledge improvement, stigma reduction and enhanced help-seeking efficacy in Canadian preservice teachers. *Canadian Journal of School Psychology*. https://doi.org/.1177/0829573516688596.

Carson, C. (2015). Rethinking special education's least restrictive environment requirement. *Michigan Law Review*, *113*(8), 1397-1426. http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&db=lft&AN=103358669&site=ehost-live&scope=site

Centers for Disease Control and Prevention. (2017). Results from the school health policies and practices study 2016. *US Department of Health and Human Services, Centers for Disease Control and Prevention*, 84-88. https://doi.org/10.1037/e373222004-001

Chang, C. C., Su, J. A., Chang, K. C., Lin, C. Y., Koschorke, M., & Thornicroft, G. (2018). Perceived stigma of caregivers: Psychometric evaluation for devaluation of consumer families scale. *International Journal of Clinical and Health Psychology*, *18*(2), 170-178. https://doi.org/10.1016/j.ijchp.2017.12.003

Clifton, T. (2017). *Outcome evaluation: Definition & program effectiveness*. https://study.com/academy/lesson/outcome-evaluation-definition-program-effectiveness.html.

Committee on School Health. (2004). School-based mental health services. *Pediatrics*, *113*(6), 1839-1845. https://doi.org/10.1542/peds.113.6.1839

Corder, G.W., & Foreman, D.I. (2009). *Nonparametric statistics for non-statisticians: A step-by-step approach.* Hoboken, New Jersey: Wiley. https://doi.org/10.1002/9781118165881

Corrigan, P. W. (2005). Dealing with stigma through personal disclosure. In Corrigan, P. W. (Ed.), O*n the stigma of mental illness*. Ann Arbor, MI: Sheridan Books.

Corrigan, P. W., & Penn, D. L. (1999). Lessons from social psychology on discrediting psychiatric stigma. *The American Psychologist, 54*(9), 765–776. https://doi.org/10.1037/0003-066X.54.9.765

Corrigan, P. W., River, L. P., Lundin, R. K., Wasowski, K. U., Campion, J., Mathisen, J., et al. (2000). Stigmatizing attributions about mental illness. *Journal of Community Psychology*, *28*, 91–102. https://doi.org/10.1002/(sici)1520-6629(200001)28:1<91::aid-jcop9>3.0.co;2-m

Cranton, P., & King, K. P. (2003). Transformative learning as a professional development goal. *New Directions for Adult & Continuing Education*, *98*, 31–37. https://doi.org/proxy1.library.jhu.edu/10.1002/ace.97

Creswell, J. W., Klassen, A. C., Plano Clark, V. L., & Smith, K. C. (2011). Best practices for mixed methods research in the health sciences. *Bethesda (Maryland): National Institutes of Health*, *2013*, 541-545. https://doi.org/10.1037/e566732013-001

Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research.* Thousand Oaks, CA: Sage.

Cross, S. P., & Hickie, I. (2017). Transdiagnostic stepped care in mental health. *Public Health Research and Practice, 27*(2). https://doi.org/10.17061/phrp2721712.

Darling-Hammond, L. (2000). Teacher quality and student achievement. *Education Policy Analysis Archives*, 8, 1. https://doi.org/10.14507/epaa.v8n1.2000

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Palo Alto, CA: Learning Policy Institute.

Davidson, S., & Manion, I. G. (1996). Facing the challenge: Mental health and illness in Canadian youth. *Psychology Health and Medicine, 1*, 41-56. https://doi.org/1354-8506/96/010041- 16

Desimone, L. M., Smith, T. M., & Phillips, K. J. R. (2013). Linking student achievement growth to professional development participation and changes in instruction: A longitudinal study of elementary students and teachers in title I schools. *Teachers College Record, 115*(5), 1-46. http://www.tcrecord.org/library/abstract.asp?contentid=16963

Dods, J. (2016). Teacher candidate mental health and mental health literacy. *Exceptionality Education International, 26*, 42-61. http://ir.lib.uwo.ca/eei/vol26/iss2/4

Dulcan, M., & Benson, R. S. (1997). Summary of the practice parameters for the assessment and treatment of children, adolescents, and adults with ADHD. *Journal of the American*

Academy of Child and Adolescent Psychiatry, *36,* 1311–1317. https://doi.org/10.1097/00004583-199709000-00033

Eccleston, K.C. (2018). Enhanced-social emotional special education services: Program blueprint. *Col. Zadok Magruder High School, Rockville, MD.*

Elmore, R. (2000). Leadership for effective middle school practice. *Phi Delta Kappan, 82*(4), 291–292. https://doi.org/10.1177/003172170008200410

Eustache, E., Gerbasi, M., Fawzi, M. S., Fils-Aimé, J., Severe, J., Raviola, G., et al. (2017). Mental health training for secondary school teachers in Haiti: A mixed methods, prospective, formative research study of feasibility, acceptability, and effectiveness in knowledge acquisition. *Global Mental Health*. https://doi.org/10.1017/gmh.2016.29.

Eyre, O., & Thapar, A. (2014). Common adolescent mental disorders: Transition to adulthood. *The Lancet, 383*(9926), 1366–1368. https://doi.org/10.1016/s0140-6736(13)62633-1

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G_Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39,* 175–191. https://doi.org/10.3758/BF03193146

Farrell, L. J., & Barrett, P. M. (2007). Prevention of childhood emotional disorders: Reducing the burden of suffering associated with anxiety and depression. *Child and Adolescent Mental Health, 12*(2), 58–65. https://doi.org/10.1111/j.1475-3588.2006.00430.x

Flaherty, L. T., & Osher, D. (2003). History of school-based mental health services in the United States. In *Handbook of school mental health advancing practice and research* (pp. 11-22). Springer, Boston, MA. https://doi.org/10.1007/978-0-387-73313-5_2

Frauenholtz, S., Mendenhall, A. N., & Moon, J. (2017). Role of school employees' mental health knowledge in interdisciplinary collaborations to support the academic success of students

experiencing mental health distress. *Children & Schools*, *39*(2), 71-79. https://doi.org/10.1093/cs/cdx004

Frauenholtz, S. I., Williford, A., & Mendenhall, A. N. (2015). Assessing school employees' abilities to respond to children's mental health needs: Implications for school social work. *School Social Work Journal, 39*(2), 46–62. https://doi.org/10.1037/t53067-000

Froese-Germain, B., & Riel, R. (2012). Understanding teachers' perspectives on student mental health: Findings from a national survey. Ottawa, ON: Canadian Teachers Federation.

Gabbidon, J., Clement, S., van Nieuwenhuizen, A., Kassam, A., Brohan, E., Norman, I., & Thornicroft, G. (2013). Mental illness: Clinicians' attitudes (MICA) scale—psychometric properties of a version for healthcare students and professionals. *Psychiatry Research*, *206*(1), 81-87. https://doi.org/10.1016/j.psychres.2012.09.028

Garet, M. S., Cronen, S., Eaton, M., Kurki, A., Ludwig, M., Jones, W., ... & Zhu, P. (2008). The Impact of Two Professional Development Interventions on Early Reading Instruction and Achievement. NCEE 2008-4030. *National Center for Education Evaluation and Regional Assistance.* https://files.eric.ed.gov/fulltext/ED502700.pdf

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*, 915-945. https://doi.org/10.3102/00028312038004915

George, M. W., Zaheer, I., Kern, L., & Evans, S. W. (2018). Mental health service use among adolescents experiencing emotional/behavioral problems and school impairment. *Journal of Emotional & Behavioral Disorders, 26*(2), 119-128. https://doi.org/10.1177/1063426617710240

GovTrack.us. (2019). S. 1177 — 114th Congress: Every Student Succeeds Act. https://www.govtrack.us/congress/bills/114/s1177

Graham, A., Phelps, R., Maddison, C., & Fitzgerald, R. (2011). Supporting children's mental health in schools: Teacher views. *Teachers and Teaching, 17*(4), 479–496. https://doi.org/10.1080/13540602.2011.580525

Grenier, L. (2018). How to analyze open-ended questions in 5 steps [template included]. Retrieved March 2, 2020, from https://www.hotjar.com/blog/analyze-open-ended-questions/

Grossman, P., Compton, C., Shahan, E., Ronfeldt, M., Igra, D., & Shaing, J. (2007). Preparing practitioners to respond to resistance: A cross professional view. *Teachers and Teaching: Theory and Practice, 13*(2), 109-123. https://doi.org/10.1080/13540600601152371

Guerra, L.A., Rajan, S., & Roberts, K.J. (2019). The implementation of mental health policies and practices in schools: An examination of school and state factors. *Journal of School Health*, *89*: 328-338. https://doi.org/proxy1.library.jhu.edu/10.1111/josh.12738

Guskey, T. R. (2003). What makes professional development effective? *Phi Delta Kappan*, *84*(10), 748-750. https://doi.org/10.1177%2F003172170308401007

Hadlaczky, G., Hökby, S., Mkrtchian, A., Carli, V., & Wasserman, D. (2014). Mental health first aid is an effective public health intervention for improving knowledge, attitudes, and behaviour: A meta-analysis. *International Review of Psychiatry, 26*(4), 467–475. https://doi.org/10.3109/09540 261.2014.92491 0.

Harrington, B. T. (2015). Silver award: Student outreach and teacher training to ensure prevention, early recognition, and treatment of mental health problems. *Psychiatric Services, 66*(10), e9–e11. https://doi.org/10.1176/appi.ps.661011

Hermann, R. C, & Rollins, C. K. (2003). Quality measurement in health care: A need for leadership amid a new federalism. *Harvard Review of Psychiatry, 11*(4), 215–219. https://doi.org/10.1080/10673220303946

Hsieh H. F., Shannon S. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277–1288. https://doi.org/10.1177/1049732305276687

Iezzoni, L. I. (2018). Explicit disability bias in peer review. *Medical Care*, *56*(4), 277-278. https://doi.org/10.1097/mlr.0000000000000889

Jensen, B., Sonnemann, J., Roberts-Hull, K., & Hunter, A. (2016). Beyond PD: Teacher professional learning in high-performing systems. Teacher quality systems in top performing countries. *National Center on Education and the Economy*.

Jeon, E., & Ha, J. (2016). How interfirm relationship depend on communication: The moderating role of collaborative communication in regional clusters. *Journal of Marketing Thought*, *2*(4), 29-35. https://doi.org/10.15577/jmt.2016.02.04.4

Johnson, R. R., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Research, 33*(7), 14-26. https://doi.org/10.3102/0013189X033007014

Jorm, A. F., Kitchener, B. A., Sawyer, M. G., Scales, H., & Cvetkovski, S. (2010). Mental health first aid training for high school teachers: A cluster randomized trial. *BMC Psychiatry, 10*(1), 51. https://doi.org/10.1186/1471- 244x-10-51

Kassam, A., Glozier, N., Leese, M., Henderson, C., & Thornicroft, G. (2010). Development and responsiveness of a scale to measure clinicians' attitudes to people with mental illness (medical student version). *Acta Psychiatrica Scandinavica*, *122*(2), 153-161. https://doi.org/10.1111/j.1600-0447.2010.01562.x

Kelly, J., Rossen, E., & Cowan, K. C. (2017). Supporting families to support students. *Educational Leadership*, *75*(4), 62-69. http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&db=f5h&AN=128250336&site=ehost-live&scope=site

Kessler, R. C., Berglund, P. A., Bruce, M. L., Koch, J. R., Laska, E. M., Leaf, P. J., et al. (2001). The prevalence and correlates of untreated serious mental illness. *Health Services Research*, *36,*987–1007. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1089274/

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Archives of General Psychiatry*, *62*(6), 593-602. https://doi.org/10.1001/archpsyc.62.6.593

Kidger, J., Stone, T., Tilling, K., Brockman, R., Campbell, R., Ford, T., … Gunnell, D. (2016). A pilot cluster randomised controlled trial of a support and training intervention to improve the mental health of secondary school teachers and students - the WISE (Wellbeing in Secondary Education) study. *BMC Public Health*, *16*(1), 1–14. https://doi.org/proxy1.library.jhu.edu/10.1186/s12889-016-3737-y

Kilgus, S. P., Reinke, W. M., & Jimerson, S. R. (2015). Understanding mental health intervention and assessment within a multi-tiered framework: Contemporary science, practice, and policy. *School Psychology Quarterly*, *30*(2), 159–165. https://doi.org/10.1037/spq0000118

Kitchener, B. A., & Jorm, A. F. (2006). Mental health first aid training: Review of evaluation studies. *Australian and New Zealand Journal of Psychiatry, 40*(1), 6–8. https://doi.org/10.1080/j.1440-1614.2006.01735.x

Koller, J. R., & Bertel, J. M. (2006). Responding to today's mental health needs of children, families and schools: Revisiting the preservice training and preparation of school-based personnel. *Education and Treatment of Children*, 197-217. https://www.jstor.org/stable/42899882?casa_token=lpmFsNkL3kwAAAAA:c0Yd-IPyIBmEaoaexMr1MMAGjsmJ8o6Do3xrDHYn7Xj40kfWkW-eZeVJyeIMndUsOSVJiJ6c5GqoSs5wQGxLfmQ5dcvEoXsAe8N81IjrxTDnGjpndOsp&seq=1#metadata_info_tab_contents

Kramer, T. L., Vuppala, A., Lamps, C., Miller, T. L., & Thrush, C. R. (2006). The interface between mental health providers, families, and schools: Parent and child attitudes about information-sharing. *Journal of Child and Family Studies*, *15*(4), 377-392. https://doi.org/10.1007/s10826-006-9019-z

Krueger, A. (1994). *Focus Group: A Practical Guide for Applied Research.* London, UK Sage (2nd Ed.).

Kutcher, S., Bagnell, A., & Wei, Y. (2015). Mental health literacy in secondary schools. *Child and Adolescent Psychiatric Clinics of North America, 24*(2), 233–244. https://doi.org/10.1016/j.chc.2014.11.007

Kutcher, S., Chehil, S., & Roberts, T. (2005). An integrated program to train local health care providers to meet post-disaster mental health needs. *Revista Panamericana de Salud Pública, 18*(4-5), 338–345. https://doi.org/10.1590/s1020-49892005000900014

Kutcher, S., & Wei, Y. (2014). School mental health literacy: A national curriculum guide shows promising results. *Education Canada.* http://www.cea-ace.ca/ education-canada/article/school-mental-health-literacy

Kutcher, S., Wei, Y., McLuckie, A., & Bullock, L. (2013). Educator mental health literacy: A programme evaluation of the teacher training education on the mental health & high school curriculum guide. *Advances in school mental health promotion*, *6*(2), 83-93. https://doi.org/10.1080/1754730x.2013.784615

Kutcher, S., Wei, Y., & Morgan, C. (2015). Successful application of a Canadian mental health curriculum resource by usual classroom teachers in significantly and sustainably improving student mental health literacy. *The Canadian Journal of Psychiatry, 60*(12), 580–586. https://doi.org/10.1177/070674371506001209

Lannin, D., Vogel, D., Brenner, R., & Tucker, J. (2015). Predicting self-esteem and intentions to seek counseling: The internalized stigma model. *The Counseling Psychologist, 43*(1), 64-93. https://doi.org/10.1177/0011000014541550

Larrivee, B. (2000). Transforming teaching practice: Becoming the critically reflective teacher. *Reflective Practice, 1*(3), 293–307. https://doi.org/10.1080/713693162

Larson, S., Spetz, J., Brindis, C. D., & Chapman, S. (2017). Characteristic differences between school-based health centers with and without mental health providers: A review of national trends. *Journal of Pediatric Health Care*, *31*(4), 484-492. https://doi.org/10.1016/j.pedhc.2016.12.007

Lauermann, F. (2014). Teacher responsibility from the teacher's perspective. *International Journal of Educational Research*, *65*, 75-89. https://doi.org/10.1016/j.ijer.2013.09.005

Lee, H.-H., & Li, M. F. (2015). Principal leadership and its link to the development of school teacher culture and teaching effectiveness: A case study of an award-winning teaching team at an elementary school. *International Journal of Education Policy and Leadership, 10*(4). https://doi.org/10.22230/ijepl.2015v10n4a555

Lefevre, F., & Lefevre, A. M. C. (2014). Discourse of the collective subject: Social representations and communication interventions. *Texto & Contexto-Enfermagem*, *23*(2), 502-507. https://doi.org/10.1590/0104-07072014000000014

Lendrum, A., Humphrey, N., & Wigelsworth, M. (2013). Social and emotional aspects of learning (SEAL) for secondary schools: Implementation difficulties and their implications for school based mental health promotion. *Child and Adolescent Mental Health*, *18*(3), 158-164. https://doi.org/10.1111/camh.12006

Leviton, L. C., & Lipsey, M. W. (2007). A big chapter about small theories: Theory as method: Small theories of treatments. *New Directions for Evaluation, 2007*(114), 27-62. https://doi.org/10.1002/ev.224

Link, B. G. & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, *27*(1), 363-385. https://doi.org/10.1146/annurev.soc.27.1.363

Mahlios, M. C. (2002). Teacher role formation. *Action in Teacher Education*, *24*(1), 9-21. https://doi.org/10.1080/01626620.2002.10463263

Mak, W., Poon, C. Y. M. Pun, L., Y. K., & Cheung, S.F. (2007). Meta-analysis of stigma and mental health. *Social Science & Medicine, 65*, 245-261. https://doi.org/10.1016/j.socscimed.2007.03.015

Martin, E. J., Tobin, T. J., & Sugai, G. M. (2003). Current information on dropout prevention: Ideas from practitioners and the literature. Preventing School Failure. *Alternative Education for Children and Youth, 47*(1), 10–17. https://doi.org/10.1080/10459880309604423.

McCarthy, C., Lambert, R., Lineback, S., Fitchett, P., & Baddouh, P. (2016). Assessing teacher appraisals and stress in the classroom: Review of the classroom appraisal of resources

and demands. *Educational Psychology Review*, *28*(3), 577–603. https://doi.org/proxy1.library.jhu.edu/10.1007/s10648-015-9322-6

McEvedy, S., Maguire, T., Furness, T., & McKenna, B. (2017). Sensory modulation and trauma-informed-care knowledge transfer and translation in mental health services in Victoria: Evaluation of a statewide train-the-trainer intervention. *Nurse Education in Practice*, *25*, 36-42. https://doi.org/10.1016/j.nepr.2017.04.012

McLuckie, A., Kutcher, S., Wei, Y., & Weaver, C. (2014). Sustained improvements in students' mental health literacy with use of a mental health curriculum in Canadian schools. *BMC Psychiatry, 14*(1). https://doi.org/10.1186/s12888-014-0379-4

Meek, F., Specht, J., & Rodger, S. (2017). A mental health training format for adult education teachers. *Canadian Journal of School Psychology, 32*(2), 103-121. https://doi.org/proxy1.library.jhu.edu/10.1177/0829573516645099

Mezirow, J. (1978). Perspective transformation. *Adult Education, 28*(2), 100–110. https://doi.org/10.1177/074171367802800202

Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco, CA: JosseyBass

Milin, R., Kutcher, S., Lewis, S. P., Walker, S., Wei, Y., Ferrill, N., & Armstrong, M. A. (2016). Impact of a mental health curriculum on knowledge and stigma among high school students: A randomized controlled trial. *Journal of the American Academy of Child & Adolescent Psychiatry, 55*(5), 383–391.e1. https://doi.org/10.1016/j.jaac.2016.02.018

Miller, J., & Hastings, S. (2017). Growing the whole teacher: Mental health in education. *Teach Thought*. https://www.teachthought.com/education/growing-whole-teacher-mental-health-education/

Molloy, L., Beckett, P., Chidarikire, S., Tammy, T. M., Guha, M., & Patton, D. (2020). Culture, the stigma of mental illness, and young people. *Journal of Psychosocial Nursing & Mental Health Services, 58*(11), 15-18. https://doi.org/proxy1.library.jhu.edu/10.3928/02793695-20201013-03

Momanyi, M. (2012). Effective teacher education and professional development in the 21st century. *African Ecclesial Review* (*AFER)*, *54*(3–4), 203–242. http://www.cuea.edu/

Montgomery County Public Schools [MCPS]. (2019). *MCPS By the Numbers.* https://www.montgomeryschoolsmd.org/

Moon, J., Williford, A., & Mendenhall, A. (2017). Educators' perceptions of youth mental health: Implications for training and the promotion of mental health services in schools. *Children and Youth Services Review, 73*, 384–391. https://doi.org/10.1016/j.childyouth.2017.01.006

Nabors, L. A., & Reynolds, M. W. (2000). Program evaluation activities: Outcomes related to treatment for adolescents receiving school-based mental health services. *Children's Services: Social Policy; Research, and Practice, 3,* 175–189. https://doi.org/10.1207/s15326918cs0303_4

National Alliance on Mental Illness [NAMI]. (n.d.). https://www.nami.org/Learn-More/Mental-Health-By-the-Numbers

National Institute of Health [NIH]. (2016). *Mental illness.* https://www.nimh.nih.gov/health/statistics/mental-illness.shtml

Neal, J. W., & Neal, Z. P. (2013). Nested or networked? Future directions for ecological systems theory. *Social Development*, *22*(4), 722-737. https://doi.org//10.1111/sode.12018

Nelson, J., & Bohanon, H. (2019). Blue ocean shift: Evidence-based practice in the professional development of teachers. *International Journal of Advanced Corporate Learning*, *12*(2), 4–20. https://doi.org/proxy1.library.jhu.edu/10.3991/ijac.v12i2.10688

Nerstrom, N. (2014). An emerging model for transformative learning. *Adult Education Research Conference*. https://newprairiepress.org/aerc/2014/papers/55

Niche. (2019). *2019 Most Diverse School Districts in Maryland.* https://www.niche.com/k12/search/most-diverse-school-districts/s/maryland/

Notaras, E., Keatinge, D., Smith, J., Cordwell, J., Cotterell, D., & Nunn, E. (2002). Parents' perspectives of health-care delivery to their chronically ill children during school. *International Journal of Nursing Practice, 8,* 297–304. https://doi.org/10.1046/j.1440-172x.2002.00383.x

OECD (2009). The professional development of teachers. *In Creating Effective Teaching and Learning Environments: First Results from TALIS* (pp. 47-79). https://doi.org/10.1787/9789264068780-5-en

Odar, C., Canter, K. S., & Roberts, M. C. (2013). Relationship between camp attendance and self-perceptions in children with chronic health conditions: A meta-analysis. *Journal of Pediatric Psychology*, *38*(4), 398-411. https://doi.org/10.1093/jpepsy/jss176

Offner, D. (2018). Ensuring your child is supported at school. *National Alliance on Mental Illness Blog [NAMI].* https://www.nami.org/Blogs/NAMI-Blog/May-2018/Ensuring-Your-Child-is-Supported-at-School

O'Leary, C. (2018). Postmodernism as a theoretical framework for learner autonomy research. *Studies in Self-Access Learning (SISAL), 9*(3), 342-370. http://sisaljournal.org/archives/sep18/oleary

Osagiede, O., Costa, S., Spaulding, A., Rose, J., Allen, K. E., Rose, M., & Apatu, E. (2018). Teachers' perceptions of student mental health: The role of school-based mental health services delivery model. *Children & Schools*, *40*(4), 240–248. https://doi.org/.library.jhu.edu/10.1093/cs/cdy020

Osgood, J. M., Kase, S. E., Zaroukian, E. G., & Quartana, P. J. (2020). Online intervention reduces hostile attribution bias, anger, aggressive driving, and cyber-aggression, results of two randomized trials. *Cognitive Therapy and Research*. *45*(2), 310–321. https://doi.org/10.1007/s10608-020-10147-8

O'Toole, C. (2019). Time to teach the politics of mental health: Implications of the power threat meaning framework for teacher education. *Clinical Psychology Forum, 313*, 15-19. https://www.researchgate.net/profile/Lucy_Johnstone/publication/330312996_Reflections_on_responses_to_the_power_threat_meaning_framework_one_year_on/links/5ca4764592851c8e64af20b1/Reflections-on-responses-to-the-power-threat-meaning-framework-one-year-on.pdf#page=17

Papandrea, K., & Winefeld, H. (2011). It's not just the squeaky wheels that need the oil: Examining teachers' views on the disparity between referral rates for students with internalizing versus externalizing problems. *School Mental Health, 3*(4), 222–235. https://doi.org/10.1007/s12310-011-9063-8

Paternite, C. E. (2005). School-based mental health programs and services: Overview and introduction to the special issue. *Journal of Abnormal Child Psychology*, *33*(6), 657–663. https://doi.org/10.1007/s10802-005-7645-3

Phillippo, K. L., & Stone, S. (2013). Teacher role breadth and its relationship to student-reported teacher support. *High School Journal, 96*(4), 358. https://doi.org/10.1353/hsj.2013.0016

President's New Freedom Commission on Mental Health. (2003). Achieving the promise: Transforming mental health care in America. *Final Report for the President's New Freedom Commission on Mental Health* (SMA Publication No. 03-3832). Rockville, MD: Author. https://doi.org/10.1037/e513572010-001

Pullmann, M. D., Bruns, E. J., Daly, B. P., & Sander, M. A. (2013). Improving the evaluation and impact of mental health and other supportive school-based programmes on students' academic outcomes. *Advances in School Mental Health Promotion, 6*(4), 226–230. https://doi.org/10.1080/1754730X.2013.835543.

Rakes, C., Bush, S., Ronau, R., & Mohr-Schroeder, M., & Saderholm, J. (2017). Making teacher PD effective using the PrimeD framework. *New England Mathematics Journal,19*, 52-62. https://mdsoar.org/bitstream/handle/11603/14416/Rakes_et_al_2017_Making_Teacher_PD_Effective_Using_PrimeD_Framework.pdf?sequence=1

Regier, D. A., Narrow, W. E., Rae, D. S., Manderscheid, R. W., Locke, B. Z., & Goodwin, F. K. (1993). The de facto U.S. mental and addictive disorders service system: Epidemiologic Catchment Area prospective 1-year prevalence rates of disorders and services. *Archives of General Psychiatry*, *50,*85–94. https://doi.org/10.1001/archpsyc.1993.01820140007001

Rigby, K. E. N. (2000). Efects of peer victimization in schools and perceived social support on adolescent well-being. *Journal of Adolescence, 23*(1), 57–68. https://doi.org/10.1006/jado.1999.0289.

Robinson, K. E. (2004). *Advances in school-based mental health interventions : Best practices and program models*. New York, NY: Civic Research Institute

Rock, H. M. (2018). The effect of face-to-face versus online pedagogy-based professional development on student learning outcomes [ProQuest Information & Learning]. *Dissertation Abstracts International Section A: Humanities and Social Sciences 79*(1–A(E). https://www.proquest.com/docview/1947275047

Rones, M., & Hoagwood, K. (2000). School-based mental health services: A research review. *Journal of Clinical Child and Family Psychology Review, 3*, 223-241. https://doi.org/73.135.252.243

Rosa, E. M., & Tudge, J. (2013). Urie Bronfenbrenner's theory of human development: Its evolution from ecology to bioecology. *Journal of Family Theory & Review*, *5*(4), 243-258. https://doi.org/10.1111/jftr.12022

Rossi, P.H., Lipsey, M. W. & Henry, G.T. (2019). *Evaluation: A systematic approach.* Thousand Oaks, CA: Sage.

Rothì, D. M., Leavey, G., & Best, R. (2008). On the front-line: Teachers as active observers of pupils' mental health. *Teaching and Teacher Education*, *24*(5), 1217-1231. https://doi.org/10.1016/j.tate.2007.09.011

Saunders, R. P., Evans, M. H., & Joshi, P. (2005). Developing a process-evaluation plan for assessing health promotion program implementation: A how-to guide. *Health Promotion Practice*, *6*(2), 134–147. https://doi.org/10.1177/1524839904273387

Scantlebury, A., Parker, A., Booth, A., McDaid, C., & Mitchell, N. (2018). Implementing mental health training programmes for non-mental health trained professionals: A qualitative synthesis. *PLoS ONE*, *13*(6), 1–28. https://doi.org/proxy1.library.jhu.edu/10.1371/journal.pone.0199746

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference/William R. Shedish, Thomas D. Cook, Donald T. Campbell*. Boston: Houghton Mifflin. https://doi.org/10.1086/345281

Soares, A. G. S., Estanislau, G., Brietzke, E., Lefèvre, F., & Bressan, R. A. (2014). Public school teachers' perceptions about mental health. *Revista de Saude Publica*, *48*, 940-948. https://doi.org/10.1590/s0034-8910.2014048004696

Spratt, J., Shucksmith, J., Philip, K., & Watson, C. (2006). 'Part of who we are as a school should include responsibility for well-being': Links between the school environment, mental health and behaviour. *Pastoral Care in Education, 24*(3), 14–21. https://doi.org/10.1111/j.1468-0122.2006.00374.x.

Stahmer, A. C., Suhrheinrich, J., Schetter, P. L., & Hassrick, E. M. (2018). Exploring multi-level system factors facilitating educator training and implementation of evidence-based practices (EBP): A study protocol. *Implementation Science*, *13*(1), 3. https://doi.org/10.1186/s13012-017-0698-1

State, T. M., Simonsen, B., Hirn, R. G., & Wills, H. (2019). Bridging the research-to-practice gap through effective professional development for teachers working with students with emotional and behavioral disorders. *Behavioral Disorders*, *44*(2), 107–116. https://doi.org/proxy1.library.jhu.edu/10.1177/0198742918816447

Steckler, A. B., Linnan, L., & Israel, B. (2002). *Process evaluation for public health interventions and research* (Vol. 28). San Francisco, CA: Jossey-Bass. https://cpb-us-w2.wpmucdn.com/blogs.cofc.edu/dist/e/509/files/2013/01/Process-Evaluation-for-Public-Health-Interventions-and-Research.pdf

Stoep, A. V., Weiss, N. S., Kuo, E. S., Cheney, D., & Cohen, P. (2003). What proportion of failure to complete secondary school in the US population is attributable to adolescent psychiatric disorder? *Journal of Behavioral Health Services and Research*, *30,*119–124. https://doi.org/10.1097/00075484-200301000-00009

Strassle, C. G. (2018). Reducing mental illness stigma in the classroom: An expanded methodology. *Teaching of Psychology*, *45*(4), 351-357. https://doi.org/10.1177/0098628318796922

Struening, E. L., Perlick, D. A., Link B. G., Hellman, F. H., Herman, D., & Sirey, J. A. (2001). The extent to which caregivers believe most people devalue consumers and their families. *Psychiatric Services, 52*(12), 1633–1638. https://doi.org/10.1176/appi.ps.52.12.1633.

Stufflebeam, D. L., & Shinkfield, A. J. (2007). *Evaluation theory, models and applications*. San Francisco, CA: Jossey-Bass.

Talbert, E. L. (1917). Truancy and non-attendance in the Chicago schools: A study of the social aspects of the compulsory education and child labor legislation of Illinois. Edith Abbott , Sophonisba P. Breckinridge. *American Journal of Sociology, 22*(6), 839–840. https://doi.org/10.1086/212699

The Johns Hopkins University. (2018). Homewood Institutional Review Board. Retrieved from https://homewoodirb.jhu.edu/

Townsend, L., Musci, R., Stuart, E., Ruble, A., Beaudry, M. B., Schweizer, B., ... & Wilcox, H. (2017). The association of school climate, depression literacy, and mental health stigma among high school students. *Journal of School Health*, *87*(8), 567-574. https://doi.org/10.1111/josh.12527

Thornicroft, G., Rose, D., Kassam, A., & Sartorius, N. (2007). Stigma: Ignorance, prejudice or discrimination?. *The British Journal of Psychiatry*, *190*(3), 192-193. https://doi.org/10.1192/bjp.bp.106.025791

Tschannen-Moran, M., & McMaster, P. (2009). Sources of self-efficacy: Four professional development formats and their relationship to self-efficacy and implementation of a new teaching strategy. *The Elementary School Journal, 110*(2), 228-245. https://doi.org/10.1086/6065771

U.S. Department of Education [DOE], Laws & Guidance- Elementary & Secondary Education. *IDEA* Section 618 Data Products: State Level Data Files. (2011). *Child count* (Publication No. CSV, 293KB). https://www2.ed.gov/programs/osepidea/618-data/state-level-data-files/index.html#bcc

U.S. Department of Education, Office for Civil Rights. (2010). *Free appropriate public education for students with disabilities: Requirements under section 504 of the rehabilitation act of 1973*. https://www2.ed.gov/about/offices/list/ocr/docs/edlite-FAPE504.html

US Department of Education, US Department of Health and Human Services. (2008). *Joint guidance on the application of the Family Educational Rights and Privacy Act (FERPA) and the Health Insurance Portability and Accountability Act of 1996 (HIPAA) to student health records*. https://www2.ed.gov/policy/gen/guid/fpco/doc/ferpa-hipaa-guidance.pdf

Van Veen, K., Zwart, R., & Meirink, J. (2012). What makes teacher professional development effective. *Teacher Learning that Matters: International Perspectives*, 3-21. https://books.google.com/books?hl=en&lr=&id=IYuoAgAAQBAJ&oi=fnd&pg=PA3&dq=problems+with+teacher+professional+development&ots=hGSkkL221H&sig=I4iW6X

7mSd4a9on7om3fOojEbiM#v=onepage&q=problems%20with%20teacher%20professional%20development&f=false

Venet, A. S. (2019). Role-clarity and boundaries for trauma-informed teachers. *Educational Considerations*, *44*(2), 3. https://doi.org/10.4148/0146-9282.2175

Vickers, H.S., & Minke, K.M. (1995). Exploring parent teacher relationships: Joining and communication to others. *School Psychology Quarterly, 10*, 133-150. https://doi.org/10.1037/h0088300

Vieluf, S., Kunter, M., & van de Vijver, F. J. R. (2013). Teacher self-efficacy in cross-national perspective. *Teaching and Teacher Education, 35*, 92–103. https://doi.org/10.1016/j.tate.2013.05.006

Von Der Embse, N. P., Kilgus, S. P., Eklund, K., Ake, E., & Levi-Neilsen, S. (2018). Training teachers to facilitate early identification of mental and behavioral health risks. *School Psychology Review*, *47*(4), 372-384. https://doi.org/10.17105/spr-2017-0094.v47-4

Wei, Y., Baxter, A., & Kutcher, S. (2019). Establishment and validation of a mental health literacy measurement in Canadian educators. *Psychiatry Research, 279,* 231–236. https://doi.org/10.1016/j.psychres.2019.03.009

Wei, Y., Carr, W., Alaffe, R., & Kutcher, S. (2019). Mental health literacy development: Application of online and in-person professional development for preservice teachers to address knowledge, stigma, and help-seeking intentions. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, *52*(2), 107–114. https://doi.org/10.1037/cbs0000164

Wei, Y., & Kutcher, S. (2014). Innovations in practice: 'Go-to' educator training on the mental health competencies of educators in the secondary school setting: A program evaluation.

Child and Adolescent Mental Health, 19(3), 219–222. Retrieved from https://doi.org//10.1111/ camh.12056.

Weinfeld Education Group (2015). Solutions & strategies for student success. http://www.weinfeldeducationgroup.com/

Weist, M. D., Evans, S. W., & Lever, N. A. (Eds.). (2003). *Handbook of school mental health: Advancing practice and research.* New York, NY: Kluwer Academic/Plenum.

Weist, M. D., & Paternite, C. E. (2006). Building an interconnected policy-training- practice-research agenda to advance school mental health. *Education & Treatment of Children, 29*(2), 173. http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=21817246&site=ehost-live&scope=site

Weist, M. D., Bruns, E. J., Whitaker, K., Wei, Y., Kutcher, S., Larsen, T., ... & Short, K. H. (2017). School mental health promotion and intervention: Experiences from four nations. *School Psychology International*, *38*(4), 343-362. https://doi.org/10.1177/0143034317695379

Woods, J. (2014). *Evaluating mental health training for teachers: Identifying and supporting students with mental health challenges* (Unpublished master's thesis). Western University, London, ON.

Yang, L. H., Kleinman, A., Link, B. G., Phelan, J. C., Lee, S., & Good, B. (2007). Culture and stigma: Adding moral experience to stigma theory. *Social Science & Medicine, 64*, 1524-1535. https://doi.org/10.1016/j.socscimed.2006.11.013

Zhang, G., Zeller, N., Griffith, R., Metcalf, D., Williams, J., Shea, C., & Misulis, K. (2011). Using the context, input, process, and product evaluation model (CIPP) as a

comprehensive framework to guide the planning, implementation, and assessment of service-learning programs. *Journal of Higher Education Outreach and Engagement, 15*(4), 57–83. http://openjournals.libs.uga.edu/index.php/jheoe/article/view/628

Tables

Table 2.1.

Instrument Construct Table

Construct	Operational Definition	Indicator	Citations
Teacher knowledge of mental health	"The lack of understanding towards the proper physiological functioning of the body and mental health related to the balance between mind and body, as a requirement for happiness that creates insecurity and complicates the management of everyday situations involving mental disorders in the classroom" (Soares, Estanislau, Brietzke, Lefèvre, & Bressan, 2014, p.940).	Questionnaire: Discourse of the Collective Subject (DCS)	Lefevre and Lefevre (2014). Soares, Estanislau, Brietzke, Lefèvre, and Bressan (2014).
Teacher perception of role	The view teachers infer to be the specific responsibilities of their job; based on individual	Questionnaire: Teacher responsibility from the Teacher's Perspective	Lauermann (2014). Phillippo and Stone (2013).

	factors and beliefs (Phillippo & Stone, 2013).		
Policies on mental health services in schools	The significant differences states and local communities have in decision-making towards policy and practice focus on public schools' mental health services (Weist & Paternite, 2006).	Study data: The School Health Policies and Practices Study (SHPPS) 2012	Centers for Disease Control and Prevention (2017). Weist and Paternite (2006).
Mental health stigma	"An overarching term that encompasses problems of knowledge such as inaccurate myths about mental illness, negative attitudes towards people with mental health problems and discriminatory behavior towards this group" (Gabbidon et al., 2013, p. 81 as stated by Thornicroft et al., 2007).	Survey: The Mental Illness: Clinicians' Attitudes (MICA) v4 (Gabbidon et al., 2013).	Gabbidon, Clement, van Nieuwenhuizen, Kassam, Brohan, Norman, and Thornicroft (2013). Thornicroft, Rose, Kassam, and Sartorius (2007).

Communication barriers	The disconnect of information-sharing regarding students being treated for mental health supports, as it relates to communications between community mental health providers, parents, and schools (Kramer, et al., 2006).	Survey: Parent-Teacher Communications (Vickers & Minke, 1995). Teacher Role and Responsibilities Survey for Parent(s)/Outside Provider(s) (Eccleston, 2019).	Vickers and Minke (1995). Kramer, Vuppala, Lamps, Miller, and Thrush (2006).

Note. *Reprinted from Assignment 2: Research Summary Table*, by Research Methods and Systematic Inquiry I, retrieved from https://blackboard.jhu.edu/webapps/blackboard/execute/content/, Spring 2019 by Johns Hopkins University School of Education

Table 2.2.

East Coast Public Schools (ECPS) vs. E-SESS Program Demographics Table

ECPS	Percent of Total	E-SESS Program	Percent of Total
Males	52%	Males	41%
Females	48%	Females	59%
Caucasian	29.3%	Caucasian	34%
African American	21.3%	African American	23%
Hispanic/Latino	30%	Hispanic/Latino	28%
Asian	14.2%	Asian	11%
Native Hawaiian or other Pacific Islander	<5%	Native Hawaiian or other Pacific Islander	0%
American Indian or Alaskan Native	<5%	American Indian or Alaskan Native	0%
Two or More Races	<5%	Two or More Races	<5%

Note. E-SESS Program demographics align with demographics associated overall with East Coast Public Schools.

Table 2.3

Need Assessment Participant Demographics

Characteristics	Percent of Total
Gender	
Male	33.3%
Female	66.7%
Race	
Caucasian	86.7%
African American	0.11%
Hispanic/Latino	0%
Asian	0%
Other	0.04%
Age	
18-21	0%
22-25	0.02%
26-35	16%
36 & Over	82%
Income	
$20,000 & Under	0%
$20,000 - $25,000	0%
$26,000 - $50,000	0%
$51,000 - $100,000	20%
$100,000 & Over	80%

Note.

Table 2.4

Parent-Teacher Communications Likert Scale Data

Question	N	Mean	SD
We trust each other.	9	2.22	1.30
It is difficult for us to work together	9	1.78	.97
We cooperate with each other.	9	2.33	.70
Communication is difficult for us	9	2.11	1.16
I respect this teacher	9	2.56	1.01
This teacher respects me.	9	2.44	1.01
We are sensitive to each other's feelings.	9	2.33	1.22
We have different views of right and wrong	9	1.33	1.00
When there is a problem with my child, this teacher is all talk and no action	9	2.22	1.30
This teacher keeps his/her promises to me.	9	2.33	1.11
When there is a behavior problem, I have to solve it without getting help from the teacher.	9	2.33	1.41
When things aren't going well it takes too long to work them out	9	2.67	1.32
We understand each other.	9	2.00	1.00
We see my child differently.	9	2.11	1.45
We agree about who should do what regarding my child.	9	1.89	1.16
I expect more from this teacher than I get.	9	2.44	1.50
We have similar expectations of my child.	9	1.78	1.39
This teacher tells me when s/he is pleased.	9	2.00	1.32
I don't like the way this teacher talks to me.	9	1.11	1.05
I tell this teacher when I am pleased.	9	2.44	1.13
I tell this teacher when I am concerned	9	3.33	.86
I tell this teacher when I am worried.	9	3.00	.86
I ask this teacher's opinion about my child's progress.	9	3.11	.78
I ask this teacher for suggestions.	9	2.89	1.26

Note.

Table 2.5

Parent Perspective of Teacher Professional Role Responsibilities Survey

Question	N	Mean	SD
Teachers have a responsibility to identify mental health concerns displayed by my child.	9	3.11	1.16
Teachers have a responsibility to take action with respect to mental health concerns displayed by my child.	9	3.67	.50
Schools have a responsibility to identify mental health concerns displayed by my child.	9	3.78	.44
Schools have a responsibility to take action with respect to mental health concerns displayed by my child.	9	3.78	.44
My child was provided supports and/or accommodations by the teacher to navigate their mental health needs.	9	1.89	1.26
My child was provided supports and/or accommodations by the school to navigate their mental health needs.	*9*	1.78	1.56
A teacher caused my child to feel they could no longer be successful in the school setting as a result of their mental health needs.	9	2.22	1.71
The school caused my child to feel they could no longer be successful in the school setting as a result of their mental health needs.	9	2.33	1.65
Schools should be provided access to information regarding my child's mental health.	9	3.33	.70
The teacher collaborated with me to support my child's mental health needs.	9	1.78	1.48

Question	N	Mean	SD
The school collaborated with me to support my child's mental health needs.	9	1.67	1.41
My child was provided a support network by the school to address mental health concerns (i.e., access to the school counselor, referral to specialists, etc.).	9	2.00	1.32
My child's teacher communicated concerns and changes in my child's academic performance in a timely manner.	9	1.33	1.32
My child received services to support their mental health needs at school in a timely manner.	9	.78	1.39
I believe the school recognized mental health concerns my child way displaying and took the necessary actions to provide intervention services.	9	1.22	1.48

Note. See Figures 3 and 4.

Table 2.6

Outcome of Open-Ended Questionnaire of Teacher Responsibility from The Teacher's Perspective

Question	Most Common Response	Percentage
1. What are the characteristics and typical behaviors of a teacher who is responsible?	Responsible/Professional	28%
2. What are the characteristics and typical behaviors of a teacher who is not responsible?	Unreliable	25%
3. What factors or conditions influence whether or not a teacher is responsible or behaves in a responsible manner?	Personal Life Factors	23%
4. List up to five things/activities for which you feel most responsible as a teacher? Why does each of these things/activities feel important to you?	Learning of Students	20%
5. Are there any areas in your work for which you feel responsible but cannot fulfill that responsibility for some reason? Please list them and explain why you feel responsible for them?	Time Restraints	21%
6. Are there things for which you feel responsible in your work that is not a part of your formal obligations or ''job description?'' If so, why do you feel responsible for them?	Outside Factors Impacting Students	32%
7. In addition to yourself, whom do you believe is/are ''responsible'' for the academic achievement of your students, and to blame if they don't ''measure up''? Please list up to 10 sources below in any order that you wish.	Parents	24%

Note.

Table 2.7

Outcome of Discourse of the Collective Subject (DCS) on Teacher Knowledge of Mental Health

Question	Most Common Response	Percentage
1. In your opinion, what is mental health?	Ability to Control Feelings/Cope	33%
2. How would you like to receive information and guidance about mental health?	E-mail/Mail/Online	44%
3. In your opinion, is using informative material important for learning about mental health? Why?	Need for Knowledge of Resources	36%
4. Where have you already received informative material about mental health?	Online	31%
5. To what video or TV programs have you watched that addresses mental health issues? What did you think?	Do Not Recall	41%
6. What articles about mental health have you read online or in a magazine or newspaper? What did the article specifically address?	N/A	45%
7. To what extent do you perceive the information conveyed by the media regarding mental health is sufficient?	Insufficient	52%

Note.

Table 2.8

The Mental Illness: Clinicians' Attitudes (MICA) v4- Teacher Attitudes Towards Mental Health Data

Question	N	Mean	SD
I just learn about mental health when I have to and would not bother reading additional materials on it.	23	1.13	.92
People with a severe mental illness can never recover enough to have a good quality of life.	23	.70	.97
If I had a mental illness, I would never admit this to my friends because I would fear being treated differently.	23	1.39	1.03
People with a severe mental illness are dangerous more often than not.	23	.91	.90
If I had a mental illness, I would never admit this to my colleagues for fear of being treated differently.	23	1.78	1.08
If a senior colleague instructed me to treat people with a mental illness in a disrespectful manner, I would not follow their directions.	*23*	3.61	1.07
I feel as comfortable talking to a person with a mental illness as I do talking to a person with a physical illness.	23	3.30	.82
The public does not need to be protected from people with a severe mental illness.	23	2.22	1.16
If a person with a mental health illness complained of physical symptoms (such as a stomach ache), I would attribute it to their mental illness.	23	.65	.64
I would use the term 'crazy,' 'nutter,' 'mad,' etc., to describe to colleagues people with a mental illness whom I have seen in my work.	23	.39	.65
If a colleague told me they had a mental illness, I would still want to work with them	23	3.30	.82

Note.

Table 2.9

Outside Mental Health Providers Attitudes Towards Mental Health Data

Question	N	Mean	SD
I just learn about mental health when I have to and would not bother reading additional materials on it.	12	.58	.90
People with a severe mental illness can never recover enough to have a good quality of life.	12	1.08	1.16
If I had a mental illness, I would never admit this to my friends because I would fear being treated differently.	12	1.33	.98
People with a severe mental illness are dangerous more often than not.	12	.67	.77
If I had a mental illness, I would never admit this to my colleagues for fear of being treated differently.	12	1.83	1.03
If a senior colleague instructed me to treat people with a mental illness in a disrespectful manner, I would not follow their directions.	*12*	4.00	0.00
I feel as comfortable talking to a person with a mental illness as I do talking to a person with a physical illness.	12	3.58	.79
The public does not need to be protected from people with a severe mental illness.	12	2.25	1.05
If a person with a mental health illness complained of physical symptoms (such as a stomach ache), I would attribute it to their mental illness.	12	1.67	.65
I would use the term 'crazy,' 'nutter,' 'mad,' etc., to describe to colleagues people with a mental illness whom I have seen in my work.	12	.17	.38
If a colleague told me they had a mental illness, I would still want to work with them	12	3.38	.38

Note.

Table 2.10

Outside Mental Health Providers Perspective on Teacher Prof. Role Responsibilities

Question	N	Mean	SD
Teachers have a responsibility to identify mental health concerns displayed by my client.	12	3.25	.96
Teachers have a responsibility to take action with respect to mental health concerns displayed by my client.	12	3.00	.73
Schools have a responsibility to identify mental health concerns displayed by my client.	12	3.33	.77
Schools have a responsibility to take action with respect to mental health concerns displayed by my client.	12	3.33	.77
My client was provided supports and/or accommodations by the teacher to navigate their mental health needs.	12	2.67	.77
My client was provided supports and/or accommodations by the school to navigate their mental health needs.	*12*	2.58	.90
A teacher caused my client to feel they could no longer be successful in the school setting as a result of their mental health needs.	12	1.58	.90
The school caused my client to feel they could no longer be successful in the school setting as a result of their mental health needs.	12	1.42	.99
Schools should be provided access to information regarding my client's mental health	12	2.92	1.08
The teacher collaborated with me to support my client's mental health needs	12	2.75	1.05
The school collaborated with me to support my client's mental health needs.	12	2.67	.98

Question	N	Mean	SD
My client was provided a support network by the school to address mental health concerns (i.e., access to the school counselor, referral to specialists, etc.)	12	3.00	.73
My client's teacher communicated concerns and changes in my child's academic performance in a timely manner.	12	2.33	.77
My client received services to support their mental health needs at school in a timely manner.	12	2.08	.66
I believe the school recognized mental health concerns my client way displaying and took the necessary actions to provide intervention services.	12	2.25	.62

Note.

Table 2.11

Outside Mental Health Providers and Parent Perspective Comparison on Teacher Prof. Role Responsibilities

	Outside Ment. Health Prov.		Parents		
	M	SD	M	SD	t-test
Teachers have a responsibility to identify mental health concerns displayed by my child/client.	3.11	1.16	3.25	.96	-.13
Teachers have a responsibility to take action with respect to mental health concerns displayed by my child/client.	3.67	.50	3.00	.73	.66
Schools have a responsibility to identify mental health concerns displayed by my child/client.	3.78	.44	3.33	.77	.44
Schools have a responsibility to take action with respect to mental health concerns displayed by my child/client.	3.78	.44	3.33	.77	.44
My child/client was provided supports and/or accommodations by the teacher to navigate their mental health needs.	1.89	1.26	2.67	.77	-.77
My child/client was provided supports and/or accommodations by the school to navigate their mental health needs.	1.78	1.56	2.58	.90	-.80
A teacher caused my child/client to feel they could no longer be successful in the school setting as a result of their mental health needs.	2.22	1.71	1.58	.90	.63
The school caused my child/client to feel they could no longer be successful in the school setting as a result of their mental health needs.	2.33	1.65	1.42	.99	.91
Schools should be provided access to information regarding my child's/client's mental health	3.33	.70	2.92	1.08	.41

	Outside Ment. Health Prov.		Parents		
	M	SD	M	SD	t-test
The teacher collaborated with me to support my child's/client's mental health needs	1.78	1.48	2.75	1.05	-.97
The school collaborated with me to support my child's/client's mental health needs.	1.67	1.41	2.67	.98	-1.00
My child/client was provided a support network by the school to address mental health concerns (i.e., access to the school counselor, referral to specialists, etc.)	2.00	1.32	3.00	.73	-1.00
My child's/client's teacher communicated concerns and changes in my child's academic performance in a timely manner.	1.33	1.32	2.33	.77	-1.00
My child/client received services to support their mental health needs at school in a timely manner.	.78	1.39	2.08	.66	-1.30
I believe the school recognized mental health concerns my child/client way displaying and took the necessary actions to provide intervention services.	1.22	1.48	2.25	.62	-1.02

Note.

Table 2.12

Outside Mental Health Providers and Teacher Comparison of Attitudes Towards Mental Health

Questions	Outside Ment. Health Prov.		Parents		
	M	SD	M	SD	F
I just learn about mental health when I have to and would not bother reading additional materials on it.	.58	.90	1.17	.91	.00
People with a severe mental illness can never recover enough to have a good quality of life.	1.08	1.16	.71	.95	.77
If I had a mental illness, I would never admit this to my friends because I would fear being treated differently.	1.33	.98	1.42	1.01	.04
People with a severe mental illness are dangerous more often than not.	.67	.77	.96	.90	.02
If I had a mental illness, I would never admit this to my colleagues for fear of being treated differently. If I had a mental illness, I would never admit this to my colleagues for fear of being treated differently.	1.83	1.03	1.79	1.06	.02
If a senior colleague instructed me to treat people with a mental illness in a disrespectful manner, I would not follow their directions.	4.00	0.00	3.63	1.05	7.66
I feel as comfortable talking to a person with a mental illness as I do talking to a person with a physical illness.	3.58	.79	3.29	.80	.02
The public does not need to be protected from people with a severe mental illness.	2.25	1.05	2.21	1.14	.18
If a person with a mental health illness complained of physical symptoms (such as a stomach ache) I would attribute it to their mental illness.	1.67	.65	.63	.64	.42

I would use the term ‘crazy’, ‘nutter’, ‘mad’, etc. to describe to colleagues people with a mental illness who I have seen in my work.	.17	.38	.42	.65	6.62
If a colleague told me they had a mental illness, I would still want to work with them	3.38	.38	3.30	.82	7.20

Note.

Table 3.1

TEACH Component, Timeframe, Duration, Activity, and Example

Component	Timeframe	Duration	Activity
PD Session 1	February 2021	1.5 hours	Pre-Test & Devaluation Survey
			Module 1
PD Session 2	February/March 2021	1 hour	Module 2
PD Session 3	March 2021	1 hour	Module 3
PD Session 4	March 2021	1 hour	Module 4
PD Session 5	March 2021	1 hour	Module 5
PD Session 6	March 2021	1 hour	Module 6
PD Session 7	March 2021	2 hours	Module 7
			Post-Test & Devaluation Survey
			Professional Development Survey for Educators

Note: PD= professional development.

Table 3.2

TEACH Embedded Sequential Design Data Collection Table

Measure	Method	Data Type	Timeframe
Pre-Post-test Survey	Quantitative	Canvas Quiz	February 2021 and March 2021
Devaluation of Consumer Scale	Quantitative	Canvas Quiz	February 2021 and March 2021
Overall Satisfaction Survey	Quantitative Qualitative	Canvas Quiz	March 2021

Note.

Table 3.3

Research Question, Measure, Timeframe, and Analysis

Research Question	Measure	Timeframe	Analysis
How do participants rate their level of overall engagement in the TEACH online professional development training?	Overall Satisfaction Survey	March 2021	Cronbach's Alpha Kendall's coefficient Descriptive Statistics Thematic coding
How many participants in a self-paced online professional development training completed the training in its entirety?	Overall Satisfaction Survey	March 2021	Descriptive Statistics
How does teachers' knowledge of mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?	Pre-Post Survey Test	February 2021 March 2021	Paired-samples t-test Cronbach's Alpha
How do teachers' attitudes towards mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?	Devaluation of Consumer Scale	February 2021 March 2021	Paired-samples t-test Cronbach's Alpha

Note.

Table 5.1

TEACH Participant Demographics

Characteristics	Percent of Total
Gender	
Male	40%
Female	60%
Race	
Caucasian	80%
African American	7%
Hispanic/Latino	7%
Asian	6%
Age	
22-25	6%
26-35	68%
36-45	20%
56 & Over	6%
Professional Experience	
1 to 3 years	0%
4 to 5 years	7%
6 to 9 years	40%
10 years or more	53%
Previous Mental Health PD	
Yes	60%
No	40%

Note: PD= professional development.

Table 5.2

TEACH Overall Satisfaction Likert Survey

Question	N	Mean	SD	p
Course/Activity was well organized	12	4.67	.65	.00
Course/Activity objectives were clearly stated	12	4.75	.45	.14c
Course/Activity assignments were relevant to Course/Activity objectives	12	4.50	.79	.05
All necessary materials/equipment/resources were provided or made readily available	12	4.83	.57	.00c
This activity enhanced the educator's/school leader's content knowledge in the area of certification	12	4.58	.66	.03
This activity increased the educator's teaching skills based on research of effective practice	12	4.42	.79	.17
This activity increased the school's application skills based on research of effective practice	12	4.58	.66	.03
This activity provided information on a variety of mental health topics	12	4.75	.45	.14c
This activity provided skills needed to analyze and use data in decision making for instruction or at all levels of the school system	12	4.50	.79	.05
This activity empowered participants to work effectively with parents and community partners to engage other to pursue excellence in learning	12	4.67	.65	.00
This activity provided the participants the knowledge and skills to think strategically and understand student mental health needs	12	4.67	.49	.38
This activity enhanced the participant's professional growth and deepened your reflection and self-assessment of exemplary practices	12	4.50	.79	.05

Note. The significance level is .050. Asymptotic significance is displayed, except for c when exact significance is displayed.

Table 5.3

Qualitative Outcomes from The Overall Satisfaction Survey

Question	Most Common Response	Percentage
1. How did this workshop relate to your job, and in what way(s) has it caused you to review your job or training activities?	Reflection/Re-Evaluate	68%
2. What new ideas have you gained, and how do you plan to implement these new ideas in your job or training capacity?	Overall Mental Health Understanding	42%
3. What information was of great value to you?	Specific Mental Health Examples	57%
4. What specific suggestions do you have to improve this activity?	Increased Use of Different Modalities	40%
5. What do you feel is your level of engagement with the material in relation to the time spent participating in the training?	Highly Engaging	68%
6. Additional comments.	Thank You	50%

Note.

Table 5.4

TEACH Pre-test vs. Post-test Knowledge

	Mean	Std. Deviation	t	df	p
Pre-test Knowledge	19.50	3.39	2.38	11	.03
Post-test Knowledge	20.75	3.59			

Note.

Table 5.5

TEACH Devaluation of Consumer Scale Pre-test vs. Post-test Attitudes

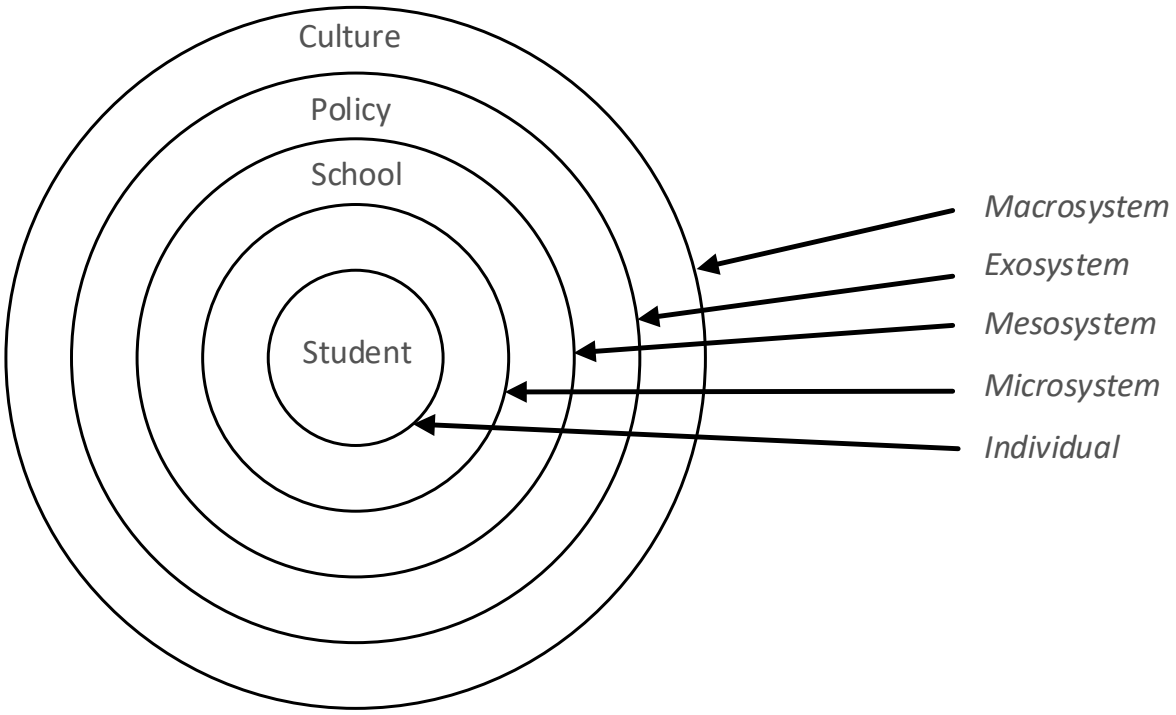
	Mean	Std. Deviation	t	df	p
Pre-test Attitude	47.83	8.94	2.22	11	.04
Pos-test Attitude	50.58	8.44			

Note.

Figures

Figure 1.1

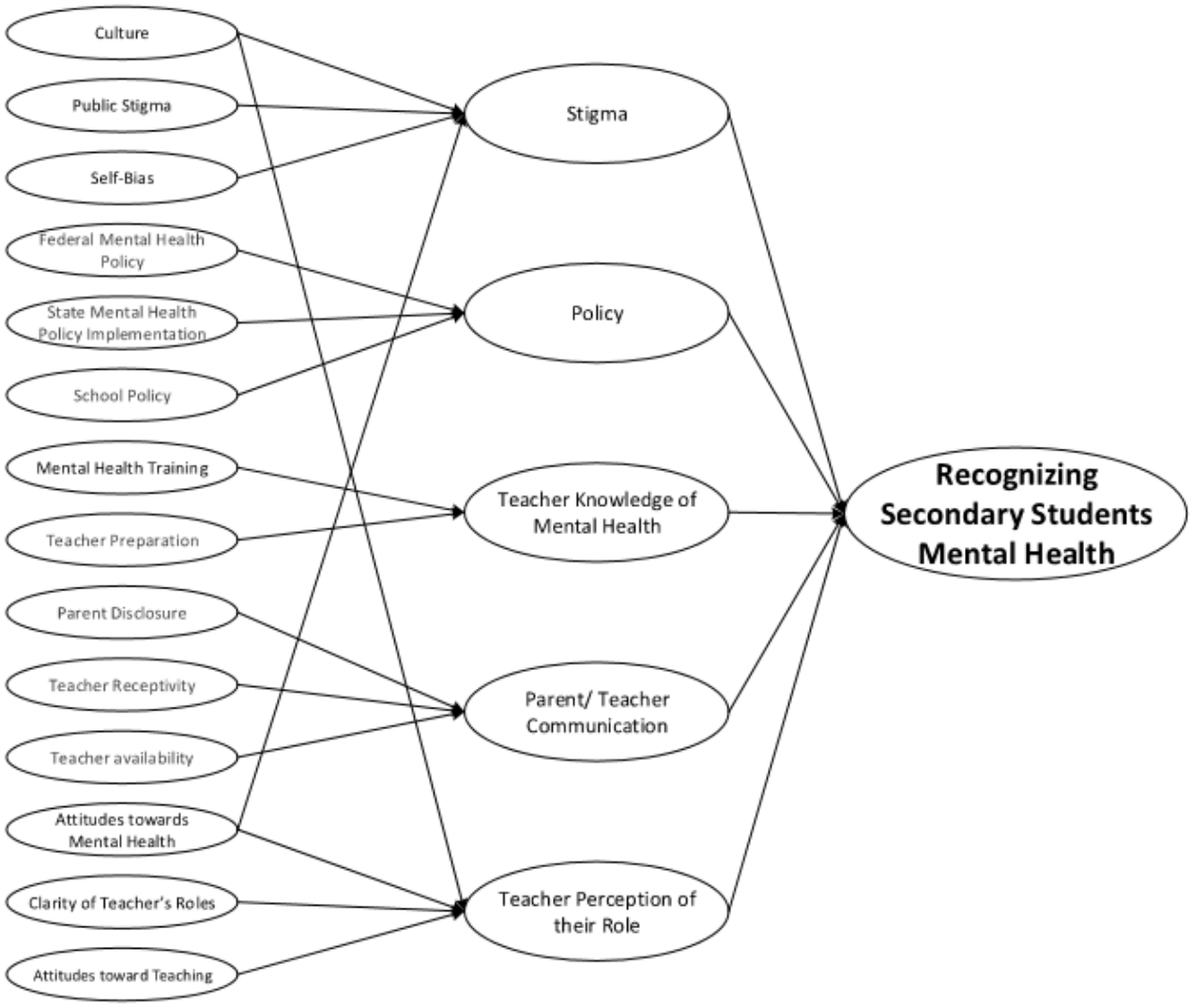
Bronfenbrenner's (1979) Ecological Systems Theory (EST)



Note. This figure illustrates the ecological system of adolescent students and where the constructs identified align within EST's systems.

Figure 1.2

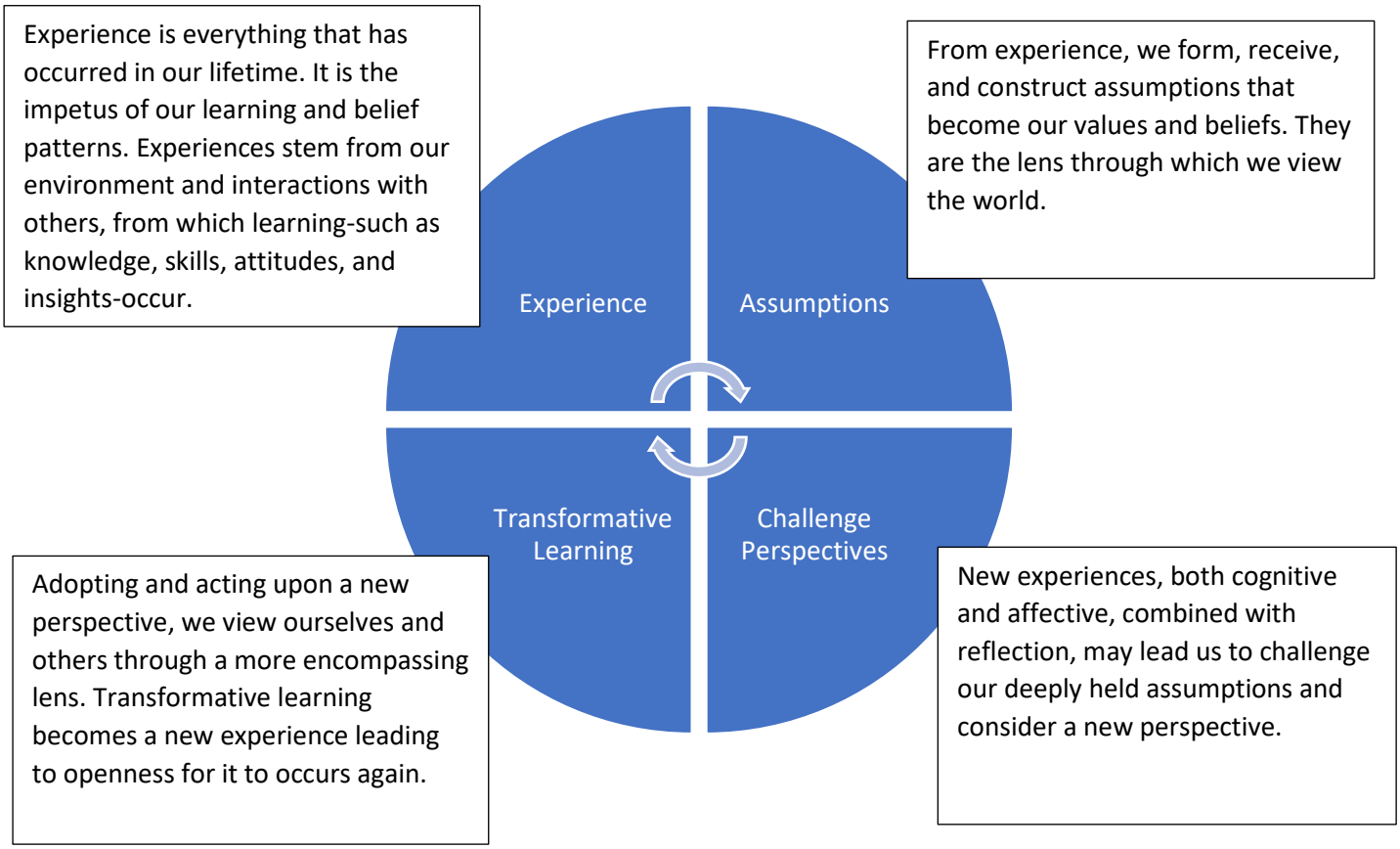
Conceptual Framework Diagram



Note. This figure illustrates constructs associated with recognizing secondary student's mental health in the education setting.

Figure 3.1

Nerstrom (2014) Transformational Learning Theory



Note. Lossley based on Mezirow's (1978) phases of transformation learning.

Figure 3.2

Conceptual Framework of Teacher Knowledge of Mental Health Factors

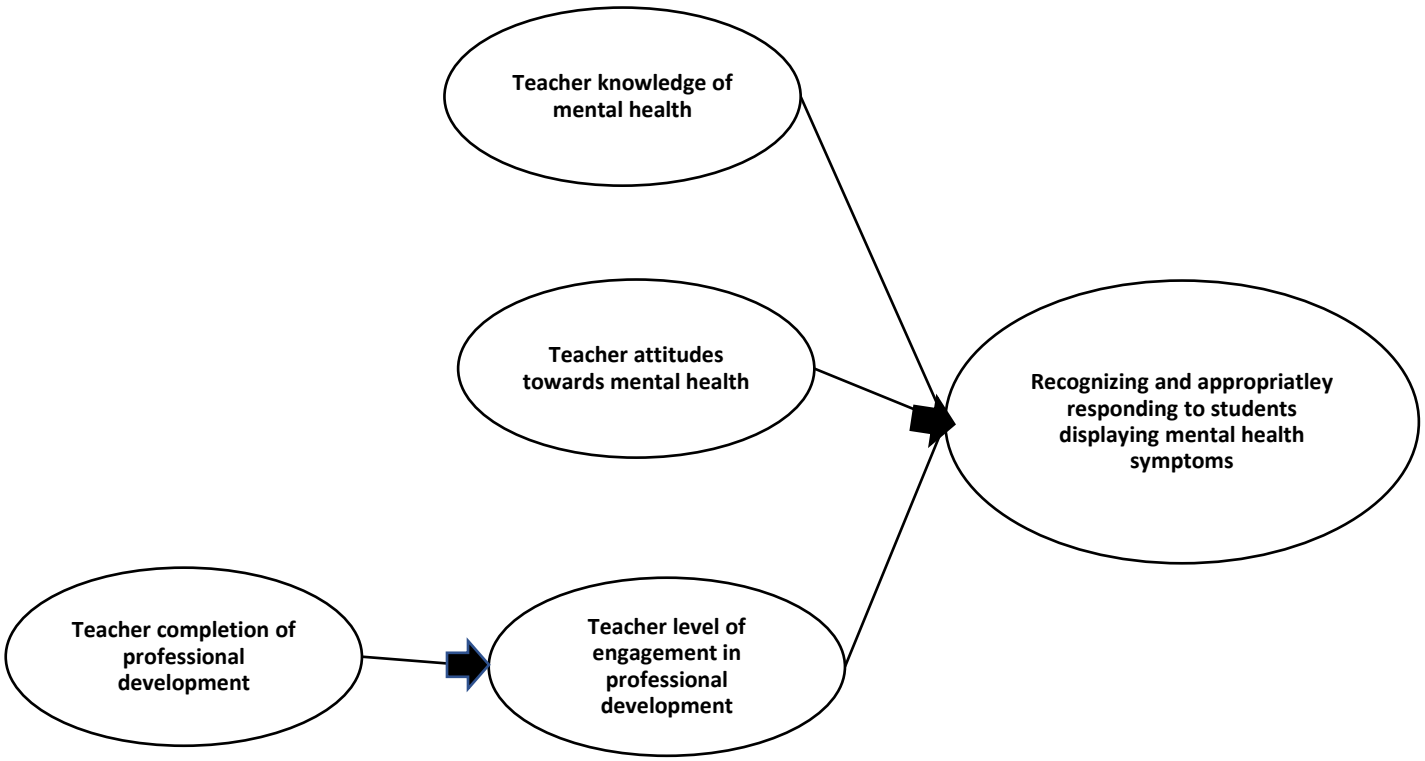


Figure 4.1

Logic Model

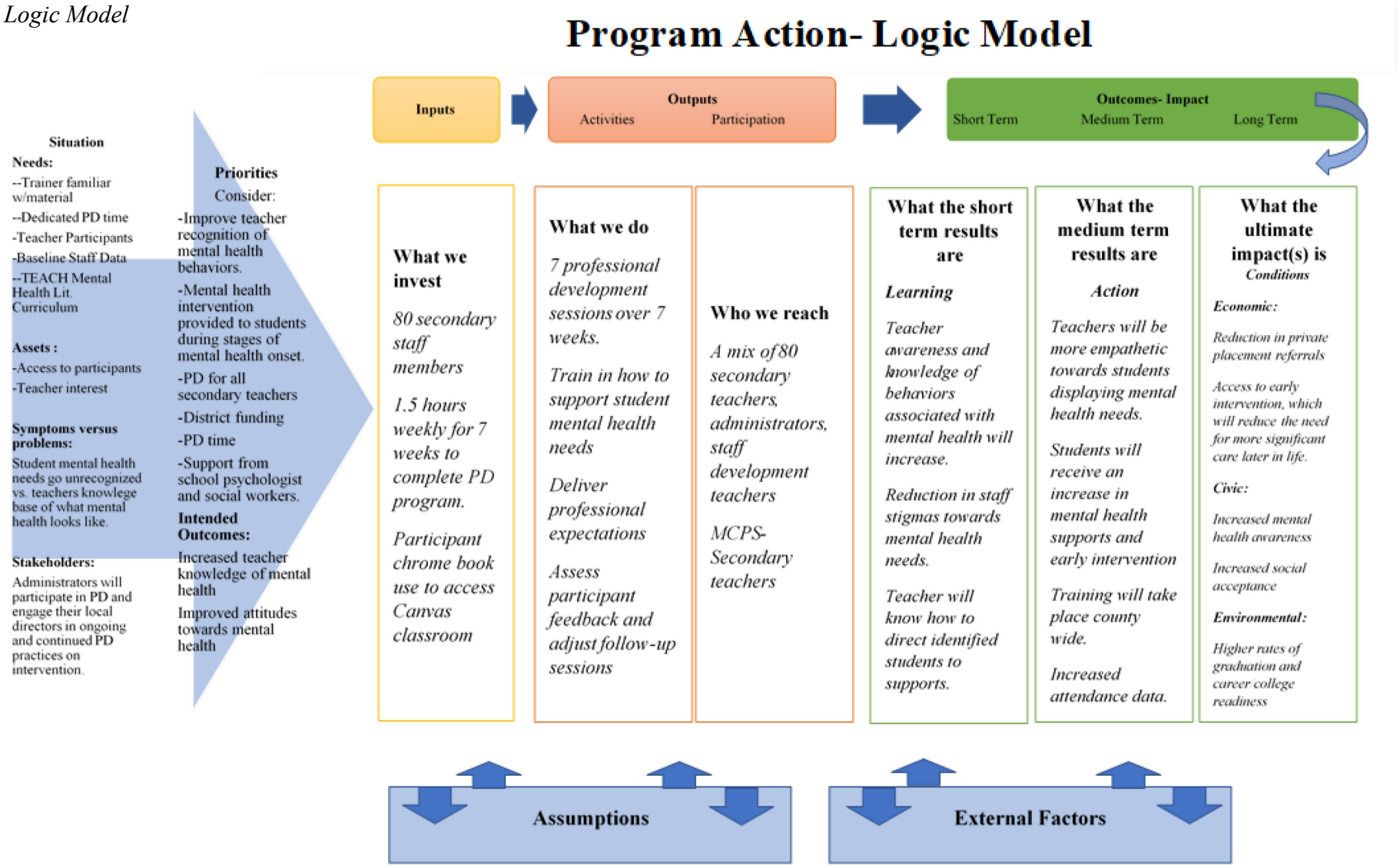


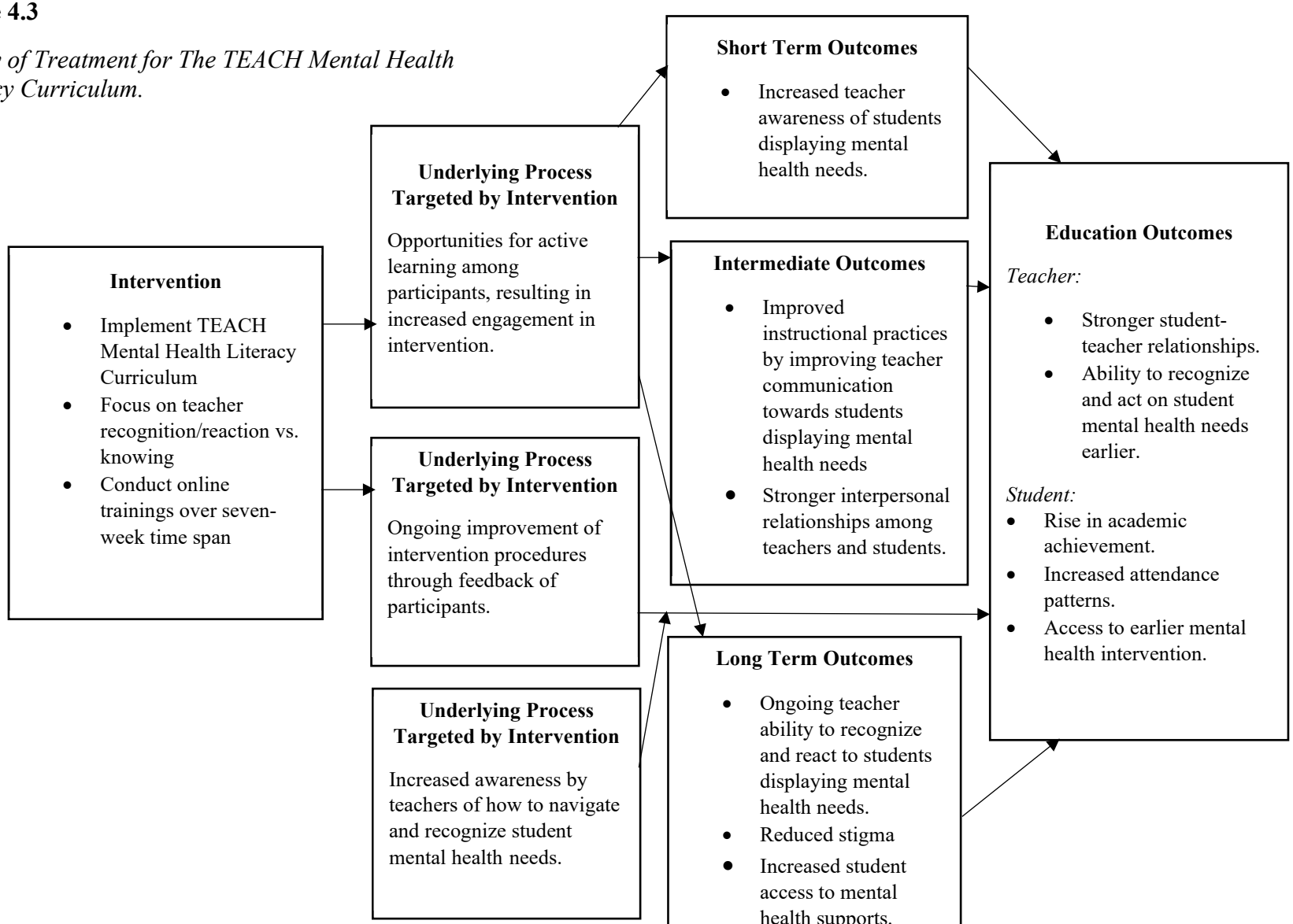
Figure 4.2

Research Summary Matrix

Research Questions	Constructs	Measures or Instrumentation	Data Collection	Data Analysis
How do participants rate their level of overall engagement in the TEACH online professional development training?	Teacher perception of professional development	Overall Satisfaction Survey	Canvas Classroom	Descriptive statistics Theoretical thematic analysis (Braun & Clarke, 2006)
How many participants in a self-paced online professional development training completed the training in its entirety?	Teacher completion of professional development	Overall Satisfaction Survey	Canvas Classroom	Descriptive statistics Theoretical thematic analysis (Braun & Clarke, 2006)
How does teachers' knowledge of mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?	Teacher knowledge of mental health	Pre-Post-test Survey	Canvas Classroom	Descriptive statistics
How do teachers' attitudes towards mental health needs change after participation in the TEACH Mental Health Literacy Curriculum Guide program?	Teacher attitudes towards mental health	Devalue of Consumer Scales Survey	Canvas Classroom	Descriptive statistics

Figure 4.3

Theory of Treatment for The TEACH Mental Health Literacy Curriculum.



Note. Arrows represent hypothesized relationship between variables.

Appendix A

Demographic Information

DEMOGRAPHIC INFORMATION: TEACHER **Please check the appropriate response or fill in the blank with the appropriate answer-please check only one answer.**			
1. Age: **___18-21** **___22-25** **___26-35** **___36 & older**	2. Gender: ___male ___female ___other	3. Ethnic origin: ___White/Caucasian ___Black/African American ___Hispanic/Latino ___Asian ___Native American ___Other _____	4. Total Household income ___$20,000 & under: ___$20,000-25,000 ___$26,000-$50,000 ___$51,000-$100,000 1. ___$100,000 & above
5. How many children do you have? _____ **6. How many years have you been teaching? _____**			

DEMOGRAPHIC INFORMATION: PROVIDER **Please check the appropriate response or fill in the blank with the appropriate answer-please check only one answer.**			
1. Age: **___18-21** **___22-25** **___26-35** **___36 & older**	2. Gender: ___male ___female ___other	3. Ethnic origin: ___White/Caucasian ___Black/African American ___Hispanic/Latino ___Asian ___Native American ___Other _____	4. Total Household income ___$20,000 & under: ___$20,000-25,000 ___$26,000-$50,000 ___$51,000-$100,000 1. ___$100,000 & above
5. How many children do you have? _____			

DEMOGRAPHIC INFORMATION: PARENT **Please check the appropriate response or fill in the blank with the appropriate answer-please check only one answer.**			
1. Age: **___18-21** **___22-25** **___26-35** **___36 & older**	2. Gender: ___male ___female ___other	3. Ethnic origin: ___White/Caucasian ___Black/African American ___Hispanic/Latino ___Asian ___Native American ___Other _____	4. Total Household income ___$20,000 & under: ___$20,000-25,000 ___$26,000-$50,000 ___$51,000-$100,000 ___$100,000 & above
5. How many children do you have?_____			

Appendix B

Johns Hopkins University Homewood Institutional Review Board (HIRB)

Informed Consent Form

Title:	Doctor of Education Needs Assessment for Research Methods and Systematic Inquiry I Course and Dissertation Research
Principal Investigator:	Dr. Camille Bryant, Associate Professor, JHU, SOE
Date:	February 27, 2018

PURPOSE OF RESEARCH STUDY:

The purpose of this research study is to examine an educational problem within an educational context to determine the salient factors contributing to this problem. The ultimate use of the data gathered will or may become part of the student researchers' dissertation research study.

PROCEDURES:

The student researcher will ask adult participants to complete educational surveys (10-15 minutes), participate in observations (45 minutes to 1 hour), interviews (45 minutes to 1 hour), and/or focus groups (45 minutes to 1 hour) to examine an educational problem within an educational context.
The student researcher will also collect pre-existing de-identified student educational data.

RISKS/DISCOMFORTS:

The risks associated with participation in this study are no greater than those encountered in daily life.

BENEFITS:

The research projects will help the student researcher to better understand the salient factors that are contributing to a problem within their educational organizations. This knowledge will help to develop informed interventions that will address these contributing factors.

VOLUNTARY PARTICIPATION AND RIGHT TO WITHDRAW:

Your participation in this study is entirely voluntary: You choose whether to participate. If you decide not to participate, there are no penalties, and you will not lose any benefits to which you would otherwise be entitled. If you choose to participate in the study, you can stop your participation at any time, without any penalty or loss of benefits. If you want to withdraw from the study, please e-mail (student investigator name and JHU e-mail), Dr. Camille Bryant, at cbryan16@jhu.edu or Dr. Stephen Pape at stephen.pape@jhu.edu explicitly stating your intention.

If we learn any new information during the study that could affect whether you want to continue participating, we will discuss this information with you.

CIRCUMSTANCES THAT COULD LEAD US TO END YOUR PARTICIPATION:

There are circumstances for which the researcher may decide to end your participation before completing the study. If a you are no longer an employee within the organization, your participation within the study will be terminated.

CONFIDENTIALITY:

Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board and officials from government agencies such as the National Institutes of Health and the Office for Human Research Protections. All of these people are required to keep your identity confidential. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.
Surveys collected in electronic format will be stored on a password protected computer. All paper documents will be kept in a locked file that is only accessible to the student researcher.
Finally, all files will be erased and paper documents shredded seven years after collection.

COMPENSATION:

You will not receive any payment or other compensation for participating in this study.

IF YOU HAVE QUESTIONS OR CONCERNS:

You can ask questions about this research study now or at any time during the study, by talking to the JHU faculty member working with you or by contacting (name and JHU e-mail of student), Dr. Camille Bryant via e-mail at cbryan16@jhu.edu or Dr. Stephen Pape at stephen.pape@jhu.edu.
If you have questions about your rights as a research participant or feel that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

SIGNATURES

WHAT YOUR SIGNATURE MEANS:

Your signature below means that you understand the information in this consent form. Your signature also means that you agree to participate in the study.

By signing this consent form, you have not waived any legal rights you otherwise would have as a participant in a research study.

Participant's Signature **Date**

Signature of Person Obtaining Consent **Date**

(Investigator or HIRB Approved Designee)

Appendix C

Johns Hopkins University
Homewood Institutional Review Board (HIRB)

Oral Informed Consent

Title:	Doctor of Education Needs Assessment for Research Methods and Systematic Inquiry I Course and Dissertation Research
Principal Investigator:	Dr. Camille Bryant, Associate Professor, JHU, SOE
Date:	October 5, 2018

PURPOSE OF RESEARCH STUDY:

The purpose of this research study is to examine an educational problem within an educational context to determine the salient factors contributing to this problem. The ultimate use of the data gathered will or may become part of the student researchers' dissertation research study.

PROCEDURES:

The student researcher will ask adult participants to participate in a virtual interview (45 minutes to 1 hour), and/or focus group (45 minutes to 1 hour) to examine an educational problem within an educational context. The interview and/or focus group will be audio recorded.

RISKS/DISCOMFORTS:

The risks associated with participation in this study are no greater than those encountered in daily life.

BENEFITS:

The research projects will help the student researcher to better understand the salient factors that are contributing to a problem within their educational organizations. This knowledge will help to develop informed interventions that will address these contributing factors.

VOLUNTARY PARTICIPATION AND RIGHT TO WITHDRAW:

Your participation in this study is entirely voluntary: You choose whether to participate and you will have adequate time to understand what you are agreeing to as part of the study.
If you decide not to participate, there are no penalties, and you will not lose any benefits to which you would otherwise be entitled. If you choose to participate in the study, you can stop your participation at any time, without any penalty or loss of benefits. If you want to withdraw from the study, please e-mail (student investigator name and JHU e-mail), Dr. Camille Bryant, at cbryan16@jhu.edu or Dr. Stephen Pape at stephen.pape@jhu.edu explicitly stating your intention.
If we learn any new information during the study that could affect whether you want to continue participating, we will discuss this information with you.

CIRCUMSTANCES THAT COULD LEAD US TO END YOUR PARTICIPATION:

There are circumstances for which the researcher may decide to end your participation before completing the study. If a you are no longer an employee within the organization, your participation within the study will be terminated.

CONFIDENTIALITY:

Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board and officials from government agencies such as the National Institutes of Health and the Office for Human Research Protections. All of these people are required to keep your identity confidential. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

We will begin the focus group by asking the participants to agree to the importance of keeping information discussed in the focus group confidential. In addition, we will ask each participant to verbally agree to keep everything discussed in the room confidential, and will remind them at the end of the group not to discuss the material outside.

All files collected in electronic format will be stored on a password protected computer. All paper documents will be kept in a locked file that is only accessible to the student researcher.
Finally, all files will be erased and paper documents shredded seven years after collection.

COMPENSATION:

You will not receive any payment or other compensation for participating in this study.

IF YOU HAVE QUESTIONS OR CONCERNS:

You can ask questions about this research study now or at any time during the study, by talking to the JHU faculty member working with you or by contacting (name and JHU e-mail of student), Dr. Camille Bryant via e-mail at cbryan16@jhu.edu or Dr. Stephen Pape at stephen.pape@jhu.edu.

If you have questions about your rights as a research participant or feel that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

Appendix D

Subscale Parent-Teacher Relationship Scale-Parent Version

The following statements concern your experiences with your child's teacher. Please read each item and use the following 5-point scale to indicate the degree to which you feel the statement is true about your experiences with the teacher.

Please indicate how much you agree or disagree with the following statements.
Response Choices: Almost Always (4); Frequently (3); Sometimes (2); Once in a While (1); Almost Never (0)

1.	**We trust each other.**	**4 3 2 1 0**
2.	**It is difficult for us to work together.**	4 3 2 1 0
3.	**We cooperate with each other.**	4 3 2 1 0
4.	**Communication is difficult for us.**	4 3 2 1 0
5.	**I respect this teacher.**	4 3 2 1 0
6.	**This teacher respects me.**	4 3 2 1 0
7.	**We are sensitive to each other's feelings.**	4 3 2 1 0
8.	**We have different views of right and wrong.**	4 3 2 1 0
9.	**When there is a problem with my child, this teacher is all talk and no action.**	4 3 2 1 0
10.	**This teacher keeps his/her promises to me.**	4 3 2 1 0
11.	**When there is a behavior problem, I have to solve it without getting help from the teacher.**	4 3 2 1 0
12.	**When things aren't going well it takes too long to work them out.**	4 3 2 1 0
13.	**We understand each other.**	4 3 2 1 0
14.	**We see my child differently.**	4 3 2 1 0
15.	**We agree about who should do what regarding my child.**	4 3 2 1 0
16.	**I expect more from this teacher than I get.**	4 3 2 1 0
17.	**We have similar expectations of my child.**	4 3 2 1 0
18.	**This teacher tells me when s/he is pleased.**	4 3 2 1 0
19.	**I don't like the way this teacher talks to me.**	4 3 2 1 0
20.	**I tell this teacher when I am pleased.**	4 3 2 1 0
21.	**I tell this teacher when I am concerned.**	4 3 2 1 0
22.	**I tell this teacher when I am worried**	4 3 2 1 0
23.	**I ask this teacher's opinion about my child's progress.**	4 3 2 1 0
24.	**I feel comfortable sharing information about my child with this teacher.**	4 3 2 1 0

Vickers, H.S., & Minke, K.M. (1995). Exploring parent teacher relationships: Joining and communication to others. *School Psychology Quarterly, 10*, 133-150

Appendix E

Mental Illness: Attitudes Scale

The following statements concern your experiences with Mental illness. Mental illness here refers to conditions for which an individual would be seen by a psychiatrist or other mental health professional. Please read each item and use the following 5-point scale to indicate the degree to which you feel the statement is true for you.

Please indicate how much you agree or disagree with the following statements.
Response Choices: Almost Always (4); Frequently (3); Sometimes (2); Once in a While (1); Almost Never (0)

1. I just learn about mental health when I have to and would not bother reading additional materials on it.	**4 3 2 1 0**
2. People with a severe mental illness can never recover enough to have a good quality of life.	4 3 2 1 0
3. If I had a mental illness, I would never admit this to my friends because I would fear being treated differently.	4 3 2 1 0
4. People with a severe mental illness are dangerous more often than not.	4 3 2 1 0
5. If I had a mental illness, I would never admit this to my colleagues for fear of being treated differently.	4 3 2 1 0
6. If a senior colleague instructed me to treat people with a mental illness in a disrespectful manner, I would not follow their directions.	4 3 2 1 0
7. I feel as comfortable talking to a person with a mental illness as I do talking to a person with a physical illness.	4 3 2 1 0
8. The public does not need to be protected from people with a severe mental illness.	4 3 2 1 0
9. If a person with a mental illness complained of physical symptoms (such as a stomach ache) I would attribute it to their mental illness.	4 3 2 1 0
10. I would use the term 'crazy', 'nutter', 'mad', etc. to describe to colleagues' people with a mental illness who I have seen in my work.	4 3 2 1 0
11. If a colleague told me they had a mental illness; I would still want to work with them.	4 3 2 1 0

Kassam, Glozier, Leese, Henderson, and Thornicroft (2010).

Appendix F

Responsibility from the Teacher's Perspective

The following statements concern your experiences with Mental illness. Mental illness here refers to conditions for which an individual would be seen by a psychiatrist or other mental health professional.

Directions: Within one to two sentences please provide as much detail as possible fo each question below.

1. What are the characteristics and typical behaviors of a teacher who is responsible?

2. What are the characteristics and typical behaviors of a teacher who is not responsible?

3. What factors or conditions influence whether or not a teacher is responsible, or behaves in a responsible manner?

4. List up to five things/activities for which you feel most responsible as a teacher? Why do each of these things/activities feel important to you?

5. Are there any areas in your work for which you feel responsible but cannot fulfill that responsibility for some reason? Please list them and explain why. feel responsible for them?

6. Are there things for which you feel responsible in your work that are not a part of your formal obligations or "job description?" If so, why do you feel responsible for them?

7. In addition to yourself, who do you believe is/are "responsible" for the academic achievement of your students, and to blame if they don't "measure up"? Please list up to 10 sources below in any order that you wish.

Lauermann, F. (2014).

Appendix G

Discourse of the Collective Subject (DCS)

The following statements concern your experiences with Mental illness. Mental illness here refers to conditions for which an individual would be seen by a psychiatrist or other mental health professional.

Directions: Within one to two sentences please provide as much detail as possible for each question below.

1. In your opinion what is mental health?

2. How would you like to receive information and guidance about mental health?

3. In your opinion, is using informative material important for learning about mental health? Why?

4. Where have you already received informative material about mental health?

5. To what video or TV programs have you watched that addresses mental health issues? What did you think?

6. What articles about mental health have you read online or in a magazine or newspaper? What did the article specifically address?

7. To what extent do you perceive the information conveyed by the media regarding mental health is sufficient?

Lefevre, F., & Lefevre, A. M. C. (2014).

Appendix H

Teacher Role and Responsibilities Survey for Parent(s)/Outside Provider(s)

Instructions: for each of questions 1-15, please respond by ticking one box only. Mental illness here refers to conditions for which an individual would be seen by a psychiatrist or other mental health professional.

	Strongly Agree	Agree	On Occasion	Disagree	Strongly Disagree
1. Teachers have a responsibility to identify mental health concerns displayed by my child.	4	3	2	1	0
2. Teachers have a responsibility to take action with respect to mental health concerns displayed by my child.	4	3	2	1	0
3. Schools have a responsibility to identify mental health concerns displayed by my child.	4	3	2	1	0
4. Schools have a responsibility to take action with respect to mental health concerns displayed by my child.	4	3	2	1	0
5. My child was provided supports and/or accommodations by the teacher to navigate their mental health needs.	4	3	2	1	0
6. My child was provided supports and/or accommodations by the school to navigate their mental health needs.	4	3	2	1	0
7. A teacher caused my child to feel they could no longer be successful in the school setting as a result of their mental health needs.	4	3	2	1	0
8. The school caused my child to feel they could no longer be successful in the school setting as a result of their mental health needs.	4	3	2	1	0
9. Schools should be provided access to information regarding my child's mental health.	4	3	2	1	0
10. The teacher collaborated with me to support my child's mental health needs.	4	3	2	1	0
11. The school collaborated with me to support my child's mental health needs.	4	3	2	1	0
12. My child was provided a support network by the school to address mental health concerns (i.e. access to the school counselor, referral to specialist, etc.)	4	3	2	1	0

	Strongly Agree	Agree	On Occasion	Disagree	Strongly Disagree
13. My child's teacher communicated concerns and changes in my child's academic performance in a timely manner.	4	3	2	1	0
14. My child received services to support their mental health needs at school in a timely manner.	4	3	2	1	0
15. I believe the school recognized mental health concerns my child way displaying and took the necessary actions to provide intervention services.	4	3	2	1	0

Appendix I

Student Interview Questions & Script

Script: *Thank you for agreeing to help us with this project. The interview should take approximately 45 minutes to one hour. Let me tell you a little bit about this project before we begin. The purpose of this study is to gain a greater understanding of how students displaying mental health needs in the secondary setting are going unrecognized as needing additional academic and social-emotional supports in the school setting.*

Preliminary Questions
1. ***After looking at the questions below, do you feel the list is comprehensive?***
2. ***If not, what other questions do you think should be included?***

Interview Questions
1. Prior to the level of service, you are receiving now did you feel that your teachers... **a) Created and inviting classroom?** **b) Taught organizational strategies?** **c) Offered instructional strategies specific to your learning style?** **d) Provided you with problem-solving and/or coping strategies?** **e) Provided a support network?** **f) Taught goal setting?** **g) Referred you to counseling services?** **h) Collaborated with your parents?** **i) Demonstrated an understanding of clinical approaches related to mental health?**
2. What do you wish your teachers did differently when you first started to show signs of dealing with mental health concerns?
3. What supports and/or aids were you provided to support your needs?
4. What caused you to feel that you could no longer be successful in the school setting?
5. What is one thing schools need to do differently for students displaying signs of mental health needs?
6. What is one thing you wish your teacher had done when you started to struggle academically?
7. How much time went by between when you first started to have feelings related to mental health needs, and a teacher or school staff member recognized your need for support?

Script: *Before we wrap things up and talk about next steps, are there any last comments you have regarding this area of research? Thank you for participating.*

Appendix J

Focus Group Interview Transcript

Thursday, May 9th, 2019

Runtime: 31 minutes, 9 seconds

Focus Group Proctor (0:00) Thank you for agreeing to help with this project. This focus group will not last any longer than an hour. So let me tell you about the project. So the purpose of this study is to gain a greater understanding of how students displaying mental health needs in the secondary setting, are going unrecognized as needing additional academic and social-emotional supports within the school setting. Alright, so I am going to ask you some questions, but before we start please take a look at the questions we are going to go over. And if you think I left anything out that I should ask you along the way, interject and let me know. Okay, and this is kind of more of a not interview so much as much if it's just kind of like talking out loud. Does that make sense? Okay. So, prior to the level service you're receiving now, I want to ask you about your teachers prior to coming here. So think about things that you experienced before you came here.

Focus Group Proctor (1:59): ***Q1a:Do you feel like teachers created inviting classrooms? Did you feel comfortable within the classrooms?***

Speaker 1 (2:09): Before Magruder because my mental health really started around Middle School. I'd say Middle School not so much versus high school. I had a few, like, out of a handful of them that understood like, I had a science teacher, one English teacher, you know, few others but else that was kind of hard because, you know, teachers will be like, shut up, shut up.

Speaker 2 (2:48): Not really, I think towards the end like before, right before I came here, things were turning around a little bit, but it's not as great as here. It wasn't as great as here, and it wasn't ever. They didn't really know what to do.

Focus Group Proctor: So you didn't feel comfortable?

Speaker 2: No, not most the time.

Focus Group Proctor *Q1b:* Did you have teachers who helped you with organization or teaching you organization strategies try to help combat your getting overwhelmed at times with work?

Speaker 3: Yeah, yes.

Speaker 4: Sort of. Probably not enough. They touched on it, but it didn't really have enough to help ease some of the, the workload.

Speaker 1:Yeah, the way they did it for me definitely didn't even help. Just made it more stressful.

Focus Group Proctor: So they didn't tailor it in such a way for who you are as an individual?

Speaker 2: Yeah.

Focus Group Proctor: Okay.

Focus Group Proctor (3:48): ***Q1c Were you offered instructional strategies specific to your learning style***? Were people making sure that you were getting instruction in the way that is best for you?

Speaker 1: No.

Speaker 5: No.

Speaker 2 (4:20): In middle school I started to, I guess realized more what I needed, but I still didn't know really know what I needed.

Speaker 1 (4:35): For me, I've always had an IEP, but I feel like in Maryland, I had resource teachers that were good and middle school, but then when it came to high school, I had one teacher not gonna make a call out boost, but she really was like,She didn't really help in the sense I needed nor did my counselor, my counselor several times I reported issues with classes and he would always say, what are you doing wrong know if anyone's ever ever the teachers doing anything wrong and he was like where sometimes it was like certain teachers were definitely could have gotten fired, but they didn't want to put in the effort to like go and do that.

Focus Group Proctor: So you feel like instead of that being what can we do to help you, it was like, Well, what are you not doing?

Speaker 1: Yes

Focus Group Proctor (5:30): ***Q1d Were you ever taught any kind of problem solving or coping strategies to support anytime you were having stress or anxiety?***

Speaker 1: For me, all the coping strategies I gave me were really more around my learning disability than my mental health. And it wasn't really ever at my Am I both high schools I wanted to before here, they really just only offered giving me like a flash pass to to the counselor. And I'm right now and then the social worker will check in with me at my second school on it. My first school. It was a flash pass and the psychologist, but it didn't really work because at either or given that the psychologist was just there wasn't enough of them there and I only saw one of them and she had the biggest caseload. So I didn't really get to see her often. And even then, I mean, they're like her, but it wasn't adequate. And Middle School was even worse. Every time I would go to the counselor because we didn't have a counselor. I mean, a psychologist there. They were just whenever I was showing signs of distress, like what I said, I just want to kill myself or things like that. They'd be like, Oh, you're not depressed. You're just feeling you know, you're in your feelings. They didn't ever really address vice issues. See, you felt like your feelings were kind of put aside or not really acknowledged the only time they were really acknowledged in middle school were by my seventh grade science teacher, and my health

teacher throughout middle school and health teacher told me to tell my parents but you know, she couldn't really do anything legally. Nor could my science teacher.

Focus Group Proctor: Why do you say that that they couldn't do anything?

Speaker 1: Well, because at my school, they're really is giving students advice unless they had diagnoses. And given that it was the counselors jobs and the counselors handled a lot of things in my middle school really badly, there was times or my friend group was being harassed or if I was being bullied, they would just not handle it at all.

Focus Group Proctor (7:55): So you felt like you would go to teachers, they couldn't do anything the people who could do things were either busy or not appropriately handling the things exactly.

Focus Group Proctor (8:07): ***Q1e Has anybody ever sat with you and helped you learn problem solving or coping strategies when you were upset?***

Speaker 2: I would go back to like, it was sort of like a program but it was more just like an office. I'd go back there. They would have like forms, they would fill out the one you came like, why are you there? Why did you come there? And how are you feeling? I had a flash past but I don't really feel like they gave me any coping skills.

Focus Group Proctor: Okay, so do you feel like what they did give you was kind of a here's a pass to leave to go see somebody who may or may not be available. And you may or may not connect with?

Speaker 2: Yeah, yeah.

Focus Group Proctor (8:52) ***Q1f Were you provided a support network?***

Speaker 2: I was surrounded by great people like the teachers that I was with. I call that was my support network, but I wasn't really like, shown or guided to them. It just kind of naturally happened for you.

Speaker 1: I already had an IEP for my learning disabilities. But I would say my support network was, was loose because my means, you know, the person who was supposed to provide me the most support was my resource teacher than my IEP manager every year. But the thing was, my research teacher Wasn't she was a clock in kind of person. She was originally taught as an English teacher, she really didn't know how to handle the job correctly. My support network when it came to like actual staff was more like I trusted certain adults versus the actual support that they tried given to me at Blair, and it was mostly my friends and then at Magruder. I mean at Parkman, gosh, I didn't have any support network. The closest thing was the social worker and the front desk Lady. I have no connections with the teachers. By the end of my time there, I didn't even have any friends. And maybe like, two friends. And when it came time when I was in an abusive relationship, they didn't do anything. They even punished me, in fact for it, like, my ex would do stuff and it would get me in trouble too. And instead of seeing that it was a need of help, they would punish me.

Focus Group Proctor: What did that look like?

Speaker 1: It looks like once my ex got kicked out of school. So what he did was he thought that if everyone thought we were doing stuff in the bathroom, that he would get kicked out. And so what he did was he tipped off his friend who he knew what tell teachers, and that kid told the teachers of course, and then you know, he was like, [name], I need to come talk to you in the bathroom. And when they were talking, they knocked me I got an extreme at trouble even though I explained what was going on. They didn't really listen to me and I got suspended for the first time ever in my life and over a misunderstanding. Yeah. And you know, several times almost being bullied the teachers just kind of talked to the kids for a little bit and then they were just like, okay, it's done and it really wasn't ever done.

Focus Group Proctor: ***Q1f Do you feel like school collaborated with your parents?*** Or if it was more of a just calling and telling them like this is happening? We don't know what to do or do you feel like they didn't collaborate with at all with your parents? What what's your feelings towards that?

Speaker 5: Teachers didn't really talk my parents at all.

Speaker 2: I'm sort of like earlier on. I didn't really have there was no collaboration with me or my parents. But towards like, the end of my time at Rockville, my case manager. He had a very good connection with my parents, and he had very good contact and they like, discuss things. So it wasn't until like there was more specific services put into place.

Speaker 1: I was definitely just a call it kind of thing when I was at the counselor and I was crying and I didn't want to do anything. And I just want to go home, they were just calling my parents didn't really have any other choice. So usually, my dad would just pick me up. They didn't really give me make choices. Because when I was talking about all the things I was talking about, they just always were pointing out the things I was doing wrong. And then I was like, even like coping strategies or anything, they were just like, you're doing this wrong, you're doing that wrong, and it Parkman it was even worse because I didn't even really have the option of a counselor. I would just usually like, leave the class and go to the main office, and just sit and cry and call my parents because I couldn't even count my parents from the get like the be able to call my parents so it just be horrible that are I'd get kicked out sometimes with class just because I was so upset.

Focus Group Proctor (13:24): ***Q1g So, when you did go to counseling services, did you feel like the counselors there understood enough clinical approach to relating to mental health?*** Do you feel like they have like a basis for that knowledge? Or did you feel like that was missing from their approach with you?

Speaker 1: Um, for me, I would definitely say, throughout both middle school and all my high schools, I would say before this, that they did not understand my mental health at all in middle school. When I said I wanted to kill myself that I think I was depressed. They would say you can't say that you're not clinically depressed, you haven't been diagnosed. So they would just like push it off. as me being extreme and moody. Then in high school. My counselor, Dr. Howard, he

would constantly be like, you know, that as you know, there's people on the world map it wears on you basically. And at me at Parkman, we see what it was. My mom was the worst school out of three schools. I went to obviously, Park mom, they, the social worker was the only person who actually understood she was volunteer by the way. She was the only one who understood was going through and she gave me some actual good advice every now and then, but I didn't get to see her every day. And I couldn't just drop into Sheila came on certain days. And it was also that a lot like it and then when she wasn't there, only person I really could talk to is like the lady in the main office

Speaker 2: I didn't have enough of a bond to I mean, if I was also different than most schools, because it's enough a quarter system it was a very like quick system of each class and If I think maybe if I bonded a little bit more my psychology teacher, I could have done something but No, honestly, I didn't have anyone to talk to about my mental health at that understood.

Speaker 5: My parents were getting really frustrated with the counselors and people there because they had like no idea what to do. They weren't really doing anything for the longest time. So I just kind of like sat at home not going to school for like, a very long time and like nothing was getting done. This kind of like wasted a lot of time.

Speaker 3: So like, back in elementary school, I would go into school like my mom went out to kick me out of the car because I was crying and I didn't want to go and, you know, it would keep me up at night. The Counselor there would take me she'd understand that I was crying and upset, but she wouldn't understand why. And she would understand that before I get anxious, and I get nervous and scared, but I don't think she understood that that affects other aspects of my life too. So I don't think that anybody really understood it until definitely where I was before.

Speaker 4 (15:59): High School. Yeah, they understood it but they didn't know it well enough to do anything about it the key there.

Focus Group Proctor: Alright, I'm move into some different types of questions now.

Q2 So what do you wish your teachers did differently when you first started, just show signs of social emotional needs.What's something that didn't happen that you wish had happened?

Speaker 5: In 8th grade there was this class where it was like three people and it was you basically got the chance to like makeup work and then think that like definitely helped me out a lot. I think it was in eighth grade I was in those classes. Like maybe you're putting one of those classes a bit sooner, maybe cause I was like a class where I could just like relax for lunch period every day. But as far as like my teachers being able to do anything sooner. I don't really know what they could have done really, unless I like had a really good relationship with them which I didn't really have a good relationship with any of my teachers in seventh grade, or had the relationship of maybe one in eighth grade.

Speaker 4: I wish they had formed. Back in middle school when I'm in fifth grade I had started but it was by the end of the year, so I don't think they really have a chance to. But by the time I gone to school again, at sixth grade, I just wish my counselors would have understood and said, okay, you think you're depressed, then have we get you to a therapist or, you know, talk to your

parents to try and get you on medication, you know, actually try and work with me instead of like, blaming my like, being of 10 or 11 year old self, you know, being like, it's your just hormones.

Focus Group Presenter: And so instead of brushing it off, you wish they had taken you serious and said, Okay, this is what you're thinking then. Let's create this plan and then essentially bring back that collaborative piece with your parents.

Speaker 4: Exactly.

Speaker 2: I wish that they would have been more understanding like if I needed to leave class or maybe I needed to sit by the door just so that I wouldn't interrupt class I needed to leave maybe I was getting overheated anxious, whatever it was that I needed breaks that kind of stuff.

Speaker 5: I mean, I think for my case, or my problem wasn't really like when I was in the classroom, really, it was more like the fact that I never even made it to the classroom. I don't really think my teachers that I had Could have really done much to help me with x. I was never even there for them to help me.

Focus Group Presenter (17:49): ***Q3 What supports or aid were you provided to support your needs?***

Speaker 1: Um, for me, it's a little complicated because I did have an IEP that did provide me with a second teacher. But um, I got a flash pass. And that was around that very end before I left Blair. Um, and that was about, um, you know, and I got to see the psychiatrist knows it. apartment. I didn't even have any of that I just had the seeing the social worker once a week.

Speaker 3 (18:36): In middle school, I had home and hospital services. And then that was also maybe six or seventh grade as when I got my piece and then all of those other services circulated and implemented, like the accommodation sort of stuff. And then in high school, they were talking about accommodations.

Speaker 2 (19:15): I did IIS, I didn't want to notice from hospital in the month ago, this is online classes work for me. But I did have a lot of Mona a lot. Like when I was taking two classes, those two teachers would come to my house, not the teachers themselves, but the is. And they would teach me and that was really good for me. And, you know, while they couldn't get to school, so that helped.

Focus Group Proctor: ***Q4 What caused you to feel that you could no longer be successful in the school settings?*** If there was times or periods where you were not going to school? What was it that that was kind of that final? And there's no right or wrong to this. And if you're not sure, you can say I have no idea. But I'm, if you can pinpoint any time that you weren't going kind of what your last straw was.

Speaker 2: I just got so nervous, so anxious that it wasn't worth it for me to put myself through it. I felt like, nobody was understanding the way I learned. Nobody understood. What I was going well, not that but nobody understood the way I learned. And so I just thought that it was

really hard for me. And I didn't know if I was working harder than I should have been. And I would just say would be stressful for me.

Focus Group Proctor: Anyone else have a period of time where you stopped going to school, what was that factor? That was finally like, I just, I, this is what's putting me over the edge. Like, I can't go to school because of this reason right now.

Speaker 4: when I stopped going to school, I was in high school, um, you know, every now and then middle school. In high school, I stopped going to school because I just felt like, everyone there was going to hurt me, like, emotionally, I felt like I was going to be bullied. Because I did have a huge bullying issue at both schools. Well, all schools I've ever actually been to, um, had some issues. And I also thought that like, it was just not worth it. You know, like, what's the point of doing this, I'm not going to be able live eventually. I was like, you know, they just killed myself. I was like, I'm gonna just gonna kill myself. What? Why? Why do all the stupid work you don't live in? So that's kind of what made me be like, Okay, I'm not gonna go to school.

Focus Group Proctor: ***Q5 So what is one thing you think schools could do differently? For students who start to display signs of needing more social emotional support***.

Speaker 3: Now, I feel like they need to instantly if someone if a student says, I'm having this happen, they need to instantly jump on that, like, shouldn't just push it off and be like, Oh, you're just going through, like a rough patch, you're going to get better soon, they need to instantly talk to the parents about strategies on, you know, maybe show them to a therapist, if students been showing it for a prolonged amount of time. That should definitely show them to a psychologist to maybe get them diagnosis something and get them educated. You know, medication should be the first option, it still should be an option, especially if, you know, the students been showing this sign for a while.

Speaker 5: I wish my school had helped me connect with a therapist outside of school. I never liked the one my Mom and Dad made me go to, because, like, they were paying for it, so I just felt like the person was talking to me because they were being payed to and not because they wanted to.

Speaker 4: I agree. I think that I think the teachers and the faculty in the school the minute they said they should contact parents, but then also beyond that, they should contact the other teachers that students involved with this.

Focus Group Proctor*: Q6 What's one thing you wish your teachers had done when you first started to show signs of academic struggles*, because I'm imagining at some point in time, the social emotional aspects started to impact you academically. So what something you teachers had done to support you academically?

Speaker 2: Distractions, really, I would just be so anxious, I would already be like, distracted by myself and all my thoughts, let alone everything around.

Speaker 1: Me, I already had a bunch of stuff on my IV, but once it was emotional stuff, I feel like, I wish my teachers, for example, would understand that I couldn't do certain assignments.

For example, I had a panic attack on my theatre teacher was trying to make me sing. And I was already anxious that day, you know, and I have a slight fear of singing in front of people, depending on like the song and stuff. And none of it was songs that was comfortable with and I had a panic attack. And such he yelled at me and was telling me it was my fault. And I feel like teachers, when they see students are like having issues like that. They should maybe his students, like I can't do this, they give them an altar arms, Diamond, instead of like yelling at them for not being able to do the assignment.

Focus Group Proctor (24:30): ***Q7 Last question. How much time do you think went by between when you first started to have feelings related to needing more social emotional support, and a teacher or staff member really recognized that there needed good to be some supports given to you?***

Speaker 4: Well, I know for me, it was a few years because I'm, you know, all of middle school, so at least three years, because I didn't get any formal support for my emotional needs back then. Even though my friends did. But it was during then, because I also had, you know, my parents are different than my friends, parents, you know, but I'm, for staff, I feel like the only people that really recognized it was like, around ninth or 10th grade when I started to get my accommodations that even though it wasn't like now.

Focus Group Proctor: Why do you feel like your friends got caught up? But you didn't? What was what did that look like?

Speaker 4: I had this one friend, her name was Amy, and you've been depressed since kindergarten, or even beforehand, and you know, she had tried killing yourself and to. And so it was a she was a lot more of a shower. And than I was when it came to my depression, she would like outwardly, like, try to kill herself constantly. Versus me. And then another friend of mine had a therapist, parent. So she already knew what was going on. And you know, it was different in that sense.

Focus Group Speaker (25:54): So you feel like because you what you were going through was more internal and happening inside of you. People aren't recognizing it.

Speaker 4: Like, I mean, I know that my health teacher taking it seriously. My health teacher probably in middle school was the only person I actually recognized that someone was wrong, and I needed help. But the problem was that she was like, Yeah, I can't really do any thing or school policy says x, y, z. I don't even remember exactly. But also, she was like, she said, I was I recommend you go to a therapist, but she couldn't tell me anything to do. And she can give me coping strategies, and she wasn't allowed to call your parents. Oh, no. Yeah. Only the counselors were allowed to call your parents.

Focus Group Proctor: Did she refer you to the counselor?

Speaker 4: Yeah, but the counselors in my counselors at my school are really bad in that sense. And a lot of other senses. We had this one time, a kid who had he had us a higher functioning autistic kid, but you he didn't understand some of my friends boundaries. And he would, it came to the point where my friend had to physically harm him, for him to stop. But then she got in

trouble, even though we had been complaining to the counselors for all of our years of middle school, that this kid was like, being rude to us. And it was like, you know, eighth grade, and she just broke and our counselors did nothing. And our counselors did nothing. When kids were like, threatening stuff. The only time our counselors did do something was like, if there was like, like physical like school shooting threats, or there was this bomb threat. I remember that they actually took that serious but that was about it.

Speaker 3: So I don't think that anybody in the school system really recognized anything. I think it was definitely my parents were okay. Since I I will get my more internalized of what at home I was able to work out they were able to see more there with me all the time. I don't think anybody in school ever really noticed anything.

Focus Group Proctor: Would you say that you feel like you were definitely displaying stuff that somebody should have picked up on or should have been aware of?

Speaker 1: I think so I was a pretty shy person, but it just continued to go down downwards.

Focus Group Proctor: So you think someone should have been like, hey, yeah, this is more than something small and if someone were paying attention and knew what to look for, they probably would have known something was there.

Speaker 2: I think so.

Focus Group Proctor (28:34): Well, before we end this, is there any last comment you want to make regarding this, anything that I didn't ask that you think is important? As far as the theme of what we talked about? Or things that you think educators, schools, policymakers, anybody should know about what it's like to be a student who is impacted by a social emotional need and how it can be hard to be successful in school when your needs aren't being met?

Speaker 1: First off with my old school, feel like there's two things with them. I feel like they really should give permission to teachers, to be able to give advice to students are reaching out because no one's going to reach out to your counselors, if they're going to just tell you to, you know, walk the other way. And secondly, I feel like they shouldn't deny student from being able to verbalize what they're feeling because they would tell me when I was like, I'm depressed, I would say, use another word, because in the end, depression, isn't you just being blue. There's other parts to it too. And I feel like they should be able to allow us to say words, you know, that's another thing. It makes you really internalize, oh, I'm not really depressed. I'm just XYZ, you know, but in reality you are. And another thing I would say is that, if a student is like, grappling with also like, both anxiety and depression, you should, like, separate the two and a certain sense because I didn't get my anxiety at all address. It was really only my depression that was addressed.

Speaker 2: I agree in the sense that sometimes they'll like but something to decide when it's maybe just as important. Like anxiety, depression or something.

Focus Group Presenter (31:09) Thank you guys so much for participating in this. This is very meaningful to me. I really appreciate you supporting me and helping me with this.

Appendix K

Health Services and Counseling, Psychological, and Social Services

Table 7.4. Significant trends over time[1] in the percentage of districts with specific health services and counseling, psychological, and social services policies and practices, SHPPS 2000, 2006, 2012, and 2016

Policy or practice	2000	2006	2012	2016	Trend
Has arrangements with other sites not on school property to provide:					
Case management for students with emotional or behavioral problems	NA	46.9	48.1	29.3	Decreased
Comprehensive assessment or intake evaluation	40.4	40.6	42.4	25.4	Decreased
Counseling for emotional or behavioral disorders (e.g., anxiety, depression, or ADHD)	NA	47.4	44.1	27.4	Decreased
Crisis intervention for personal problems	49.1	51.2	42.0	28.1	Decreased
Family counseling	41.7	39.2	39.4	21.2	Decreased
Group counseling	37.3	35.7	34.7	20.8	Decreased
Identification of emotional or behavioral disorders (e.g., anxiety, depression, or ADHD)	NA	48.0	41.8	25.6	Decreased
Individual counseling	49.0	47.4	48.8	31.1	Decreased
Self-help or support groups	32.1	30.0	28.0	18.4	Decreased
Suicide prevention	NA	NA	9.6	19.9	Increased
Counseling, psychological, or social services staff worked on counseling, psychological, or social services activities with district-level:					
Health education staff	45.3	59.9	57.3	65.7	Increased
Health services staff	50.7	58.8	62.6	81.1	Increased
Nutrition services staff	11.2	39.3	37.6	51.5	Increased
Physical education staff	32.4	41.7	46.8	57.6	Increased
Requires schools to create and maintain student support teams	NA	NA	80.1	69.4	Decreased
Requires school counseling, psychological, or social services staff to participate in the development of Individualized Health Plans when indicated	38.5	58.6	57.2	69.3	Increased
Requires a newly hired school counselor to have as minimum education level:					
Undergraduate degree in counseling	NA	NA	15.2	26.5	Increased
Master's degree in counseling	NA	NA	70.7	53.7	Decreased
Requires a newly hired school psychologist to have an undergraduate degree in psychology	NA	NA	4.6	12.8	Increased
Requires school counseling, psychological, or social services staff to earn continuing education credits on counseling, psychological, or social services topics	NA	NA	51.4	64.6	Increased

Policy or practice	2000	2006	2012	2016	Trend
Requires schools at each level to have a specified ratio of counselors to students:					
Elementary schools	NA	NA	26.4	16.2	Decreased
Middle schools	NA	NA	28.1	16.8	Decreased
High schools	NA	NA	32.0	19.8	Decreased
Provided funding for professional development or offered professional development to counseling, psychological, or social services staff on the following topics:[2]					
Peer counseling or mediation	56.6	56.1	45.2	41.4	Decreased
Student support teams	NA	NA	60.7	47.2	Decreased
Has someone in the district who oversees or coordinates counseling, psychological, or social services	62.6	71.9	63.1	79.5	Increased
Employee wellness					
Requires each school to have someone to oversee or coordinate employee wellness programs	NA	18.0	15.7	30.6	Increased
Provided funding for health risk appraisals or offered health risk appraisals for employees[3]	NA	12.3	25.9	40.6	Increased

NA = Data not available.

[1] Significant linear trends based on regression analyses with all years of available data. Trends are presented if $p < .01$ and the difference between the two endpoints (2000 and 2016, 2006 and 2016, or 2012 and 2016) was greater than 10 percentage points or a factor of 2.

[2] During the 2 years before the study.

[3] During the 12 months before the study.

Healthy and Safe School Environment (includes Social and Emotional Climate)

Table 7.5. Significant trends over time[1] in the percentage of districts with specific school environment policies and practices, SHPPS 2000, 2006, 2012, and 2016

Policy or practice	2000	2006	2012	2016	Trend
Violence prevention					
Prohibits electronic aggression or cyber-bullying that interferes with the educational environment[5]	NA	NA	82.0	93.2	Increased
Injury prevention and safety					
Requires inspection or maintenance of smoke alarms	72.2	89.8	91.6	91.0	Increased
Requires students to wear appropriate protective gear when engaged in classes such as wood shop or metal shop	86.6	83.1	72.4	73.5	Decreased
Requires students to use hearing protection devices during classes or activities where they are exposed to potentially unsafe noise levels	NA	NA	47.5	61.3	Increased
Crisis prevention, response, and recovery					
Ever used any materials from the U.S. Department of Education to develop policies or plans related to crisis preparedness, response, and recovery	NA	85.9	73.8	71.8	Decreased
Worked with a local mental health or social services agency to develop their crisis preparedness, response, and recovery plan[6]	NA	57.5	46.1	43.6	Decreased

Evaluated or assessed district's crisis preparedness, response, and recovery plan[6,7]	NA	74.6	74.2	85.3	Increased
School health coordination					
Provided funding for professional development or offered professional development for school faculty and staff on how to implement schoolwide policies and programs related to:					
Alcohol use prevention	NA	73.3	62.8	58.9	Decreased
Illegal drug use prevention	NA	76.7	64.9	63.8	Decreased
Tobacco use prevention	NA	70.0	58.8	56.7	Decreased
Had one or more district-level councils, committees, or teams that addressed[8]					
Alcohol or other drug use prevention	NA	86.1	84.6	69.6	Decreased
HIV prevention	NA	66.1	64.2	49.2	Decreased
Management of foodborne illnesses	NA	NA	64.6	52.4	Decreased
Management of infectious diseases (e.g., influenza)	NA	NA	78.1	64.3	Decreased
Tobacco use prevention	NA	84.2	82.5	70.6	Decreased
Had one or more school health councils that included representatives from[8]					
School maintenance staff	NA	NA	59.4	46.5	Decreased
School mental health or social services staff	NA	57.4	66.4	70.1	Increased
School transportation staff	NA	NA	48.3	35.6	Decreased
Students	NA	74.4	64.3	56.0	Decreased
Provided any funding or offered to help schools establish a school health council, committee, or team[9]	42.9	50.5	39.4	30.7	Decreased

NA = Data not available.

[1] Significant linear trends based on regression analyses with all years of available data. Trends are presented if $p < .01$ and the difference between the two endpoints (2000 and 2016, 2006 and 2016, or 2012 and 2016) was greater than 10 percentage points or a factor of 2.

[2] Inside or outside school building.

[3] Does not include the use of smart phones, tablets, or computers for educational purposes.

[4] Among districts that do not require school uniforms.

[5] Even if it does not occur on school property or at school-sponsored events.

[6] Among the 95.9% districts with either a district-level plan or a requirement for schools to have a plan.

[7] During the 12 months before the study.

Among the districts with a district-level school health council, committee, or team.[9] During the 2 years before the study.

Centers for Disease Control and Prevention. (2017).

Appendix L

TEACH Mental Health Literacy Curriculum Pre-Post-test Survey

Instructions: for each of questions 1-30, please respond by selecting 'True' or 'False'. Mental illness here refers to conditions for which an individual would be seen by a psychiatrist or other mental health professional.

	True	False
1. A phobia is an intense fear about something that might be harmful (such as heights, snakes, etc.)		
2. Useful interventions for adolescent mental disorders include BOTH psychological and pharmacological treatment.		
3. Mental distress can occur in someone who has a mental disorder		
4. Stigma against the mentally ill is uncommon in State USA.		
5. Substance abuse is commonly paired with a mental disorder.		
6. The most common mental disorders in teenage girls are eating disorders.		
7. The stresses of being a teenager are a major factor leading to adolescent suicide		
8. Three of the strongest risk factors for teen suicide are: romantic breakup, conflict with parents, and school failure.		
9. Schizophrenia is a split personality.		
10. A depressed mood that includes a drop in school grades and lasts for a month or longer in a teenager is very common and should not be confused with a clinical Depression that may require professional help.		
11. A Generalized Anxiety Disorder usually arises from being burned out by stressful events.		
12. Diet, exercise and establishing a regular sleep cycle are all effective treatments for many mental disorders in teenagers.		
13. Anorexia nervosa is very common in teenage girls.		
14. Bipolar Disorder is another name for manic depressive illness.		
15. Bipolar Disorder is another name for manic depressive illness.		
16. Obsessions are thoughts that are unwanted and known to be incorrect.		
17. Serotonin is a liver chemical that helps control appetite.		
18. Mental disorders may affect between 15-20 percent of Americans.		
19. Youth who have Social Anxiety Disorder do not get well with treatment.		

20. Depression affects about 2 percent of people in North America.		
21. A psychiatrist is a medical doctor who specializes in treating people who have a mental illness.		
22. Attention Deficit Hyperactivity Disorder (ADHD) is equally common in boys and girls.		
23. A hallucination is defined as a sound that comes from nowhere.		
24. Panic Disorder is a type of Anxiety Disorder.		
25. Medications called "anti-psychotics" are helpful in treating some of the symptoms of Schizophrenia		
26. A delusion is defined as seeing something that is not real.		
27. Lack of pleasure, hopelessness and fatigue can all be symptoms of a clinical Depression.		
28. Nobody with Schizophrenia ever recovers to the point where they can live a positive life.		
29. People with Mania may experience strange feelings of grandiosity.		
30. Mental disorders are psychological problems that are often caused by poor nutrition.		

Kutcher, S., Wei, Y., McLuckie, A., & Bullock, L. (2013).

Appendix M

Devaluation of Consumers Scale

This survey is designed to find out about your attitudes toward the statement. Please read each item and use the following 7-point scale to indicate the degree to which you feel the statement is true for you. Please select only one answer for each statement.

Please indicate how much you agree or disagree with the following statements.
Response Choices: Strongly Disagree (7); Disagree; (6); Somewhat Disagree, (5); Neither Agree or Disagree (4); Somewhat Agree (3); Agree (2); Strongly Agree (1).

1. Most people who have a mental illness are dangerous and violent.	7 6 5 4 3 2 1
2. I would be willing to have a person with a mental illness at my school.	7 6 5 4 3 2 1
3. It is easy to tell when someone has a mental illness because they usually act in a strange or bizarre way.	7 6 5 4 3 2 1
4. A mentally ill person should not be able to vote in an election.	7 6 5 4 3 2 1
5. Most people with a mental illness can have a good job and a successful and fulfilling life.	7 6 5 4 3 2 1
6. I would be happy to have a person with a mental illness become a close friend.	7 6 5 4 3 2 1
7. Mental illness is usually a consequence of bad parenting or poor family environment.	7 6 5 4 3 2 1
8. People who are mentally ill do not get better.	7 6 5 4 3 2 1

Struening, E. L., Perlick, D. A., Link B. G., Hellman, F. H., Herman, D., & Sirey, J. A. (2001).

Appendix N

Overall Satisfaction Survey

Please respond to each item by circling the number which best describes your opinion (1=poor; 5=excellent).

A. Participant Satisfaction	Poor		Average		Excellent
1. Course/Activity was well organized	1	2	3	4	5
2. Course/Activity objectives were clearly stated.	1	2	3	4	5
3. Course/Activity assignments were relevant to Course/Activity objectives.	1	2	3	4	5
4. All necessary materials/equipment/resources were provided or made readily available	1	2	3	4	5
B. Impact on Professional Practice	**Poor**		**Average**		**Excellent**
1. This activity enhanced the educator's/school leader's content knowledge in the area of certification.	1	2	3	4	5
2. This activity increased the educator's teaching skills based on research of effective practice.	1	2	3	4	5
3. This activity increased the school's application skills based on research of effective practice.	1	2	3	4	5
4. This activity provided information on a variety of mental health topics.	1	2	3	4	5
5. This activity provided skills needed to analyze and use data in decision making for instruction or at all levels of the school system.	1	2	3	4	5
6. This activity empowered participants to work effectively with parents and community partners to engage other to pursue excellence in learning.	1	2	3	4	5
7. This activity provided the participants the knowledge and skills to think strategically and understand student mental health needs.	1	2	3	4	5
8. This activity enhanced the participant's professional growth and deepened your reflection and self-assessment of exemplary practices.	1	2	3	4	5

C. Comments Please take a few moments to respond to the following questions. Your answers will greatly assist us in determining how to improve in-service course offerings.	
1. How did this workshop relate to your job, and in what way(s) has it caused you to review your job or training activities?	
2. What new ideas have you gained and how do you plan to implement these new ideas in your job or training capacity?	
3. What information was of great value to you?	
4. What specific suggestions do you have to improve this activity?	
5. What do you feel is you level of engagement with the material in relation to the time spent participating in the training?	
6. Additional comments.	

Appendix O

Demographic Information

DEMOGRAPHIC INFORMATION: TEACHER **Please check the appropriate response or fill in the blank with the appropriate answer- please check only one answer.**				
1. Age: ___22-25 ___26-35 ___36- 45 ___ 46- 55 ___ 56 & Older	2. Gender: ___male ___female ___other	3. Ethnic origin: ___White/Caucasian ___Black/African American ___Hispanic/Latino ___Asian ___Native American ___Other _____	4. How many years have you been teaching? ___ 1 to 3 years ___ 4 to 5 years ___ 6 to 9 years ___ 10 years or more	5. Have you previously participated in any professional development focused on mental health? ___ yes ___ no

Appendix P

Recruitment Materials/Scripts: (E-mail Letter)

Dear Potential Participant,

My name is Kristen Eccleston and I am a Doctoral Candidate of Education in the School of Education at Johns Hopkins University. As part of a research project, I will be overseeing virtual professional development sessions that will provide in depth information about adolescent mental health needs in the education setting. The professional development will be provided over a series of seven self-paced modules via an online classroom format and can be completed during a time that works for your schedule.

Participation in this study is voluntary. If you choose to participant in my study, you will be provided support and materials that will aid you in working with students displaying and diagnosed with mental health needs. Please know that you may discontinue your participation in the project at any time. If you decide not to participate, there are no penalties and you will not lose any benefits to which you would otherwise be entitled.

If you do choose to participate in the study, your participation will be completely confidential. Neither anyone reading the results of the study nor I will be able to identify you. Under this condition, you agree that any information obtained from this research may be used in any way thought best for publication or education.

If you have questions or concerns about your participation in this study, you should first contact Kristen Eccleston at kcolli24@jhu.edu.

If you choose to participate in this study, please use this link to sign-up and receive access to the professional development modules.

Thank you for your time and consideration. Sincerely,
Kristen C. Eccleston, MS Sp. Ed., NBCT
kcolli24@jhu.edu

Appendix Q

JOHNS HOPKINS UNIVERSITY
HOMEWOOD INSTITUTIONAL REVIEW BOARD (HIRB)

RESEARCH PARTICIPANT INFORMED CONSENT FORM

Study Title:	Strengthening Teacher Knowledge of Mental Health Disorders and Improving Teacher Attitudes Towards Adolescent Mental Health Needs
Application No.:	IRB Project - HIRB00011580
Sponsor/Supporter/Funded By:	Johns Hopkins University, School of Education
Principal Investigator:	Dr. Robert Ronau, Senior Advisor 2800 N Charles St, Baltimore, MD 21218 rronau1@jhu.edu (502) 693-1114

You are being asked to join a research study. Participation in this study is voluntary. Even if you decide to join now, you can change your mind later.

1. Research Summary (Key Information):

The information in this section is intended to be an introduction to the study only. Complete details of the study are listed in the sections below. If you are considering participation in the study, the entire document should be discussed with you before you make your final decision. You can ask questions about the study now and at any time in the future.

Implementation of the TEACH Mental Health Literacy program is being performed with the goal of increasing teacher mental health knowledge, leading to early identification and knowledge of intervention resources for students displaying mental health needs in the education setting.

2. Why is this research being done?

This research is being done to provide secondary teachers access to virtual professional development that addresses their knowledge and attitudes towards students with adolescent mental health needs. An outcome evaluation was chosen for this study to

determine if participant results demonstrate achievement in the TEACH Mental Health Literacy programs objectives. Analysis of participant data will be completed to determine if steps to improve the program are necessary during future implementation.

The participant population are certified secondary teachers within Omitted County Public Schools. All Participants must hold a valid secondary (middle/high school) teaching certificate. Participants will include full and part-time staff, and include general education, special education, and specialist teachers. Also, participants will include both males and females and represent a wide range of teaching experience. Recruitment will occur through e-mail sent to the participants' school e-mail address. A standard script will be sent to all eligible participants.

We anticipate that approximately 80 people will participate in this study.

3. What will happen if you join this study?

If you agree to be in this study, we will ask you to do the following things:

Participants will participate in one introductory module and six self-paced virtual professional development (PD) modules, focused on adolescent mental health.

Prior to participation in the modules participants will be asked to complete an online pre-test regarding mental health knowledge in early February 2021 and again shortly after the conclusion of the PD sessions in March 2021. This pre-test and post-test is identical and will analyze changes in data prior to and after participation in the study. The true/false survey will take about 10-15 minutes to complete.

Participants will also be asked to complete a short eight item Devaluation of Consumer Likert scale exploring attitudes related to mental illness. Completion of this identical survey will take place prior to and after the PD sessions and will take about 5-8 minutes to complete.

A professional development survey for educators' questionnaires will be provided to participants at the end of the PD training, requesting feedback about thoughts and experiences with engagement with the PD activities. The survey includes both Likert scale and open-ended responses. The questionnaire should only take 10-20 minutes to complete.

How long will you be in the study?

Participation in this study is self-paced. However, participants will have access to the study from February 2021 until March 19, 2021.

4. What are the risks or discomforts of the study?

The risks associated with participation in this study are no greater than those encountered in daily life. However, you may experience being tired or bored when you are completing questionnaires. You do not have to answer any question you do not want to answer.

5. Are there benefits to being in the study?

Benefits to the participant may include increased awareness of adolescent mental health needs and the ability to identify and direct concerns associated with adolescent mental health needs that may arise in their professional context.
Benefits to others that may be reasonably expected from the research include earlier identification and access to mental health resources and supports for students displaying undocumented mental health needs in the education setting.

This study may benefit society if the results lead to a better understanding of signs and behaviors associated with adolescent mental health needs.

6. What are your options if you do not want to be in the study?

Your participation in this study is entirely voluntary. You choose whether to participate. If you decide not to participate, there are no penalties, and you will not lose any benefits to which you would otherwise be entitled.

If you choose to participate in the study, you can stop your participation at any time, without any penalty or loss of benefits. If you decide not to participate, there are no penalties, and you will not lose any benefits to which you would otherwise be entitled.

Participation in the Mental Health First Aid Training provided to omitted public school educators via PDO may also provide you the benefits of participating in this study. However, opportunities to provide feedback and shape the delivery of the course is not offered through PDO.

7. Will it cost you anything to be in this study?

No.

8. Will you be paid if you join this study?

No.

9. Can you leave the study early?

- You can agree to be in the study now and change your mind later, without any penalty or loss of benefits.
- If you wish to stop, please tell us right away.
- If you want to withdraw from the study, please notify the Student Investigator (Kristen Eccleston) via telephone at 240-286-7125 and provide your participant identification number you were assigned at the start of the study.

10. Why might we take you out of the study early?

You may be taken out of the study if:

- Staying in the study would be harmful.

- You fail to follow instructions.
- The study is cancelled.
- There may be other reasons to take you out of the study that we do not know at this time.

If you are taken out of the study early, Johns Hopkins may use the information that has already been collected if the information is needed for this study or any follow-up activities.

11. How will the confidentiality of your biospecimens and/or data be protected?

Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board and officials from government agencies such as the National Institutes of Health and the Office for Human Research Protections. (All of these people are required to keep your identity confidential.) Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

Participants in the study will be enrolled by the student investigator into the virtual classroom. Participants will not have a need to interact with one another and will not be able to see other participants in the study. Overall information from the study will be filed and locked on a private computer device that requires description coding to access. Participants will need to use their omitted public schools employee log in information in order to access the study's virtual training site.

12. What other things should you know about this research study?

What is the Institutional Review Board (IRB) and how does it protect you?
This study has been reviewed by an Institutional Review Board (IRB), a group of people that reviews human research studies. The IRB can help you if you have questions about your rights as a research participant or if you have other questions, concerns or complaints about this research study. You may contact the IRB at 410-516-6580 or hirb@jhu.edu.

What should you do if you have questions about the study?
Call the student investigator, Kristen Eccleston at 249-287-7125. If you wish, you may contact the student investigator by letter. The address is on page one of this consent form. If you cannot reach the student investigator or wish to talk to someone else, call the IRB office at 410-516-5680.

You can ask questions about this research study now or at any time during the study, by talking to the researcher(s) working with you.

If you have questions about your rights as a research participant or feel that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

13. What does your signature on this consent form mean?

Your signature on this form means that: You understand the information given to you in this form, you accept the provisions in the form, and you agree to join the study. You will not give up any legal rights by signing this consent form.

WE WILL GIVE YOU A COPY OF THIS SIGNED AND DATED CONSENT FORM

_____

_____
Signature of Participant (Print Name)
Date/Time

_____

_____
Signature of Person Obtaining Consent (Print Name)
Date/Time

NOTE: A COPY OF THE SIGNED, DATED CONSENT FORM MUST BE KEPT BY THE PRINCIPAL INVESTIGATOR; A COPY MUST BE GIVEN TO THE PARTICIPANT.